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JUNE 22, 1929.

Vol. CX.

*Good and
Good-looking*

A GOOD Product is Essential. Poor articles sometimes sell themselves by their good appearance but there are few repeat sales. Good articles sometimes fail to sell themselves through their poor appearance. The ideal is a good and good-looking article—in other words

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(Free from Sugar)

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| 1/- | | |
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| 1/3 | | |
| 8-oz. bottles | (Cellophane Wrapper) | doz. 13/6 |
| 1/9 | | |

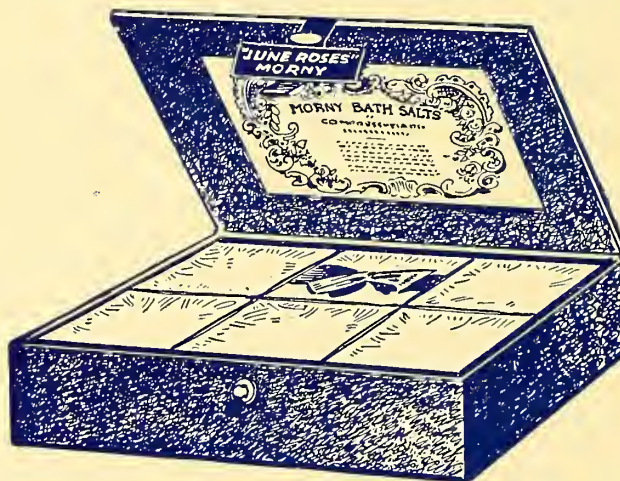
Allen & Hanburys Ltd.
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MORNY BATH SALTS TABLETS

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" YESHA," etc. - - - -		
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WHAT'S IN A NAME?

HAVE YOU NOTICED
THAT SINCE THE ADVENT OF

Jane PERFUMERY

THE WORD JUNE IS ASSUMING
NATION WIDE POPULARITY AS
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ALL OVER THE COUNTRY—AND
EVERY DAY, OUR BABY GIRLS
ARE BEING CHRISTENED WITH
THIS MAGIC NAME—A NAME
WHICH EXPRESSES THE GLORY
OF ENGLISH BEAUTY—SO
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SO CHARMINGLY PORTRAYED
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Jane THE FAMOUS TRADE
MARK ASSOCIATED WITH

Saville's
Jane
REGD.
TRADE
MARK

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MOST POPULAR PERFUME

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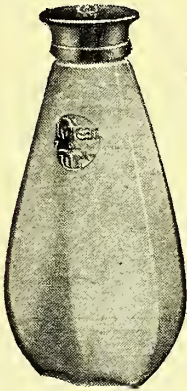


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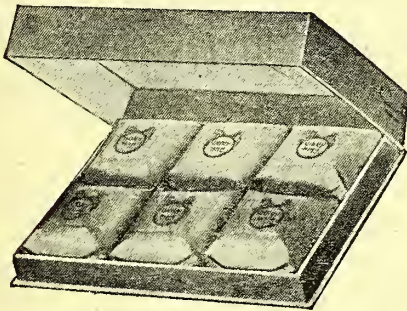
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themselves!



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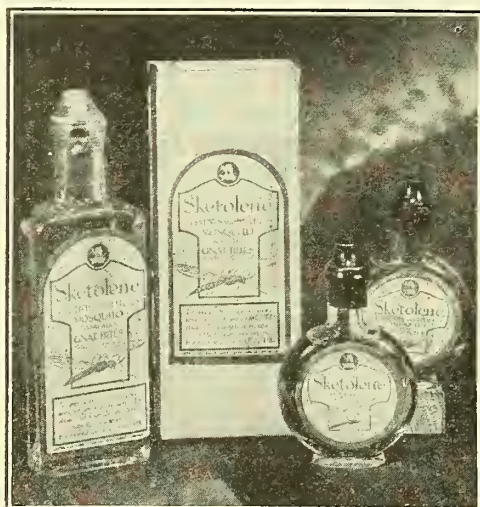
Note: The 2/- Coty Compacte in gilt box, series 063 with mirror and puff can now be obtained in L'Aimant perfume and shade 'Nacree.'



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 is available.

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 upward given on 1/3,
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 BONUS given on 7½d.
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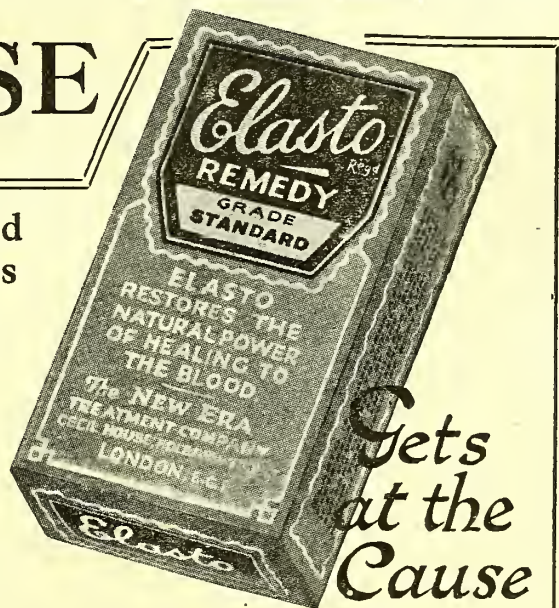
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"ELASTO" is a scientifically prepared cell food—NOT A DRUG—and may be introduced with every confidence of extensive recommendation.

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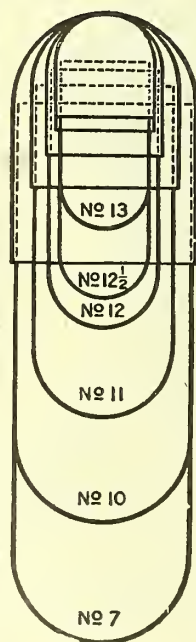
Gets at the Cause

Prepared in the Laboratories of
THE NEW ERA TREATMENT CO.
CECIL HOUSE, HOLBORN VIADUCT,
LONDON, E.C.

Full particulars, Showcards, and Leaflets on request.

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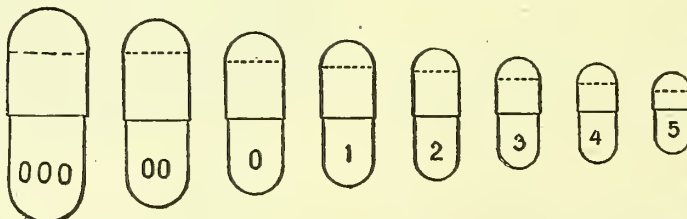
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MADE ON THE ONLY COMPLETELY AUTOMATIC MACHINE IN THE WORLD, PRODUCING MORE CAPSULES DAILY THAN ANY OTHER MAKER.

RESULTS ARE ENSURED AND QUICKER WHEN THERAPEUTICALLY ACTIVE MEDICAMENTS ARE TAKEN IN OUR CAPSULES INSTEAD OF IN FORM OF COMPRESSED TABLETS.

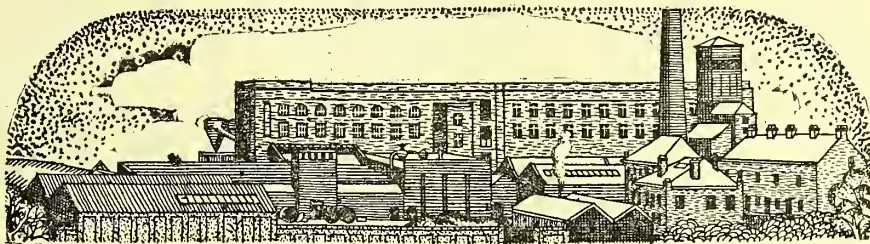


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ATTRACTIVE PRICE

WE CAN FURNISH ANY QUANTITY PACKED IN BOXES, OR BULK, PROMPTLY.

WRITE TO US—

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HERE IN PENWORTHAM MILLS, in the heart of England's Cotton County, *every* process in the manufacture of Surgical Dressings is carried out.



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YARNS are wound, bobbins are warped, beams are sized, and cloth is woven on our extensive plant for lint, and gauze, and bandage.



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VERNONS make *all* kinds of Surgical Dressings. Ask your Wholesaler for them.

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FOR a fortnight's window display and a £5 order (made up in any sizes), we will send you an additional supply of Roboleine to the value of 20/- absolutely free. Samples and literature for your counter and display material for your window will also be included without charge.

Take advantage of this special offer now, in time for the steadily increasing Summer trade. The great advertising campaign has pushed Roboleine off the phar-

FREE

macy shelves faster than ever before in Winter and Spring. It will continue throughout the Summer, putting more and more Roboleine profits in your till.

Write now, send us a card, and get a free stock of the product that Doctors have recommended and the public have used increasingly for the past 22 years.

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CONCENTRATED NOURISHMENT
IN EVERY SPOONFUL

OPPENHEIMER, SON & CO., LTD.

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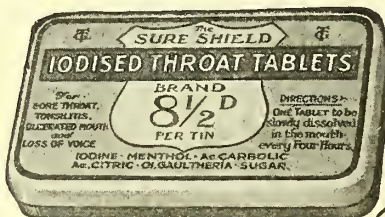
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IODISED THROAT TABLETS



8½d. Tins


5/6 per doz. 63/- per gross

1s. 3d. Tins

9/6 per doz.

108/- per gross

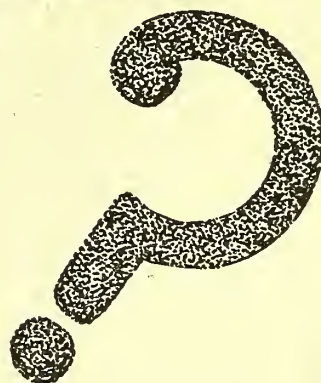
THOS. GUEST & CO., LTD., CARRUTHERS STREET,
ANCOATS, MANCHESTER.



Do you sell THE TOOTH PASTE IN "THE TUBE WITHIN A TUBE"

The manufacturers of "NEW MIX" Tooth Paste had a definite reason for inventing "the tube within a tube." Without it their product would have lost practically all its efficiency.

Fruit Juice—the substance contained in the inner tube—must be kept separate from all cleansing ingredients, otherwise chemical action would be released. The outer tube contains a polishing substance which mixes with the fruit juice on the brush. "NEW MIX" has introduced a new and better way of cleansing teeth and avoiding decay.



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MADE**



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Southalls' Towels

SUMMERTIME



“CELTEX” (Regd.)
CELLULOSE

FOR EASY DISPOSAL IN WATER

In packets of one dozen:—

			Trade		Retail
Size 0	- - -	8'9	gross		1' - doz.
„ 1	- - -	10'4	„		1'2 „
„ 2	- - -	13'2	„		1'6 „
„ 3	- - -	17'7	„		2' - „

In Sixpenny packets:—

Size 0	(6 Towels)	4'5	doz. pkts.	6d. pkt.
„ 1	(5 Towels)	4'5	„	6d. „

*SOUTHALLS' English Towels
are the Standard of Excellence.*

PLEASE OBTAIN SUPPLIES FROM YOUR WHOLESALE HOUSE

Maw's Page

“Meritor” for satisfaction

There is one factor which serves to maintain the popularity and the sales of “Meritor” tooth brushes. It may be summed up in a single word—“Satisfaction.”

“Meritor” tooth brushes satisfy the pharmacist—

1. Because they provide him with a complete range of patterns and prices, with a proprietary name, which is restricted to his own profession.
2. Because they enable him to maintain prices reasonably on the basis of quality, instead of cutting prices and profits indiscriminately at the cost of satisfaction to his customers and profit to himself.
3. Because they are provided with efficient means of display and stock-keeping. The “Meritor” tooth brush display case has earned a permanent position in the best pharmacies by its sheer ability to sell the goods.

“Meritor” tooth brushes satisfy the pharmacist's customers—

1. Because the series provides ample choice of patterns and prices.
2. Because they are hygienically packed.
3. Because each brush is definitely guaranteed.
4. Because “Meritor” brushes are hand-made by British labour and are the product of a reputable firm.

Sell “Meritor” tooth brushes for satisfaction to your customer and yourself.

S. Maw, Son & Sons, Ltd.,
Aldersgate St., London,
and Barnet.



AN APOLOGY

I ALBERT PARTON of 457a New Cross Road, London, S.E.14, and 53 Albert Road, Southsea, HEREBY MAKE A PUBLIC APOLOGY to Messrs. Genatosan, Ltd., the Manufacturers of Genasprin, for the inaccurate and misleading statement which appears in my booklet "Parton's Analyses of So-called Patent Medicines" to the effect that Genasprin contains Phenacetin, Quinine Sulphate, and Dover's Powder. I am removing this statement from all copies in my possession or control and undertake not to repeat it in future editions of this or any other book I publish.

I further WITHDRAW and APOLOGISE for the mis-statements made by my representatives in respect to Genasprin, and I fully acknowledge that Genasprin contains nothing but the purest acetyl-salicylic acid and may be taken with safety in accordance with the directions for use.

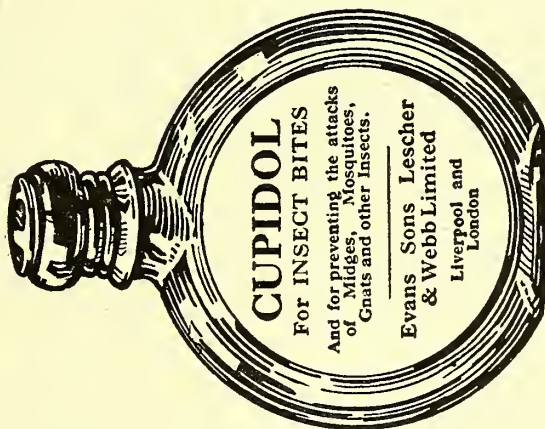
ALBERT PARTON

5th June 1929

Signed by Albert Parton in the presence of J. H. FRANCKEISS,
Solicitor, Portsmouth.

CUPIDOL

CUPIDOL is the most EFFECTIVE Anti-sting; non-greasy, non-poisonous, pleasantly perfumed. You can recommend it with every confidence for the prevention and relief of insect bites:— mosquitoes, midges, gnats, etc. It keeps the flies away.



Actual Size.

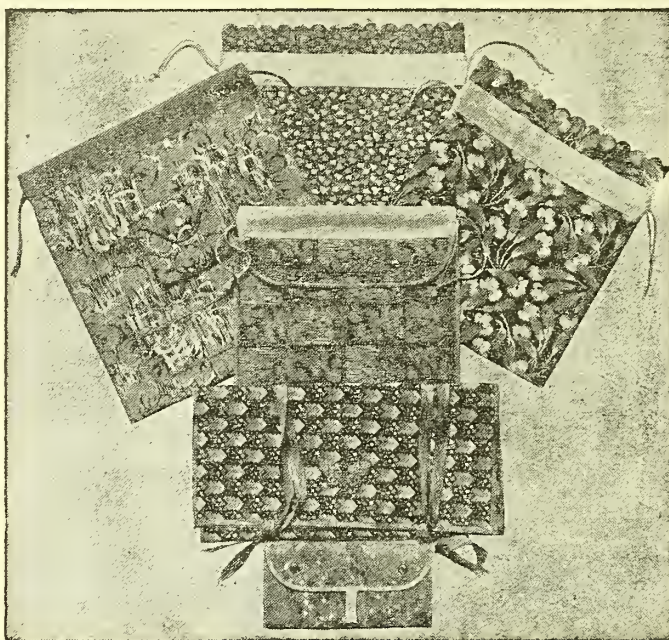
CUPIDOL is easy to store and to handle, packed in handy pocket flasks. It gives a good profit, and entire satisfaction. Attractive show-card and display material supplied.

Wholesale Price, 5/9 per dozen; Retail, 9d. each.

Wholesale Price, 9/- per dozen; Retail, 1/3 each.

EVANS SONS LESCHER & WEBB, LTD.

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**SPONGE BAGS
TOILET
HOLDALLS
TRAVELLING
COMPANIONS**

*The most delightful
range ever offered*

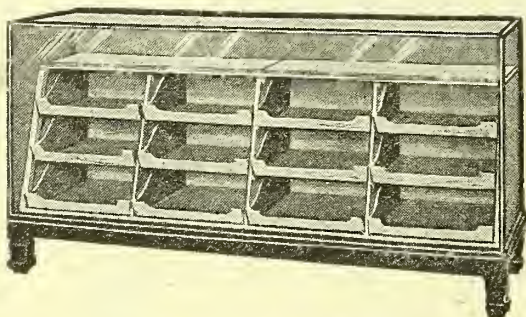
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BROTHERS LIMITED

184 TO 190 GOSWELL ROAD,
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RETURN for OUTLAY



THE QUICK SERVER

Ideal for business premises. Mahogany or Oak and Plate Glass. Three rows of light oak trays, opening from back as drawers. Above is a plate-glass shelf accessible by familiar sliding plate-glass doors.

Full illustrated list free on request.

On some goods you doubt that you are getting an adequate return for outlay, on some you are certain, on none can you rely so absolutely as on those things that enhance the attractiveness of your Pharmacy. A well-designed fitting is

An Investment

that brings a perpetual return. It attracts custom, gives status and lasts long after it has paid for the initial cost. We shall be pleased to discuss any shop-fitting problem.

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or
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2191

Philip Josephs & Sons Ltd.
90-92 St. John Street, Clerkenwell, E.C.1
PHARMACY FITTERS FOR OVER A CENTURY.

Late of
OLD ST.

AYRTON'S TASTELESS CASTOR OIL

Without Odour & Attractive to the Palate

A most reliable medicine for children and adults.

By a special process, Ayrton's Castor Oil has been made odourless and has been entirely denuded of the offensive taste usually associated with this valuable remedy.

**AYRTON, SAUNDERS
& CO. LTD.**
Manufacturing Chemists
LIVERPOOL

Made in
ENGLAND.

TRADE PRICES			
2oz. per doz.	5/-	Gross lots @	4/9
4 " " "	7/-	" " "	6/6
8 " " "	10/-	" " "	9/6
16 " " "	18/6	" " "	17/6

1/6



The amazing success of “MOORLAND’S”



With a few years lead in sales ; with the finest research and laboratory organisation working and maintaining this lead ; with the whole-hearted support of a large and ever-increasing public behind them—“Moorland’s” must be the choice of every wise and successful pharmacist

The fact is, the public demand “Moorland’s” because they appreciate such a thoroughly good product and real value for money

Heaps of good showmatter with every order

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THE 3/- size of "Vapex" is to be preferred to the 2/- size because it gives you a 50% increase in turnover and a larger minimum protected profit. At the same time it offers better value to the customer owing to the fact that the stamp is of the same denomination as for the smaller size.

When asked for a bottle of "Vapex" may we therefore suggest that you proffer the 3/- size as a matter of course? It will be to the advantage both of your customer and of yourself.

The 3/-outers illustrated above, holding six and twelve cartons respectively, are convenient for counter display and take up little room. As they can be used for this purpose after the contents have been removed there is no danger of loss by pilfering.

Now is the time to recommend "Vapex" for Summer Colds, Hay Fever and other Catarrhal conditions. Appropriately worded window bills can be supplied immediately on request.

To EXPORT BUYERS—All orders and enquiries should be addressed to our Sole Export Agents
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THOMAS KERFOOT & CO LTD
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, N.1
ESTABLISHED 1797.

D/175

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Our complete range of Artificials will allow a cheap replacement in many formulas, which will become necessary owing to the advance in price of the naturals, due to the severe weather having had disastrous effects on the trees.

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ORANGE BLOSSOMS 1244

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FLEURANGEOLE 1396 } New bases for

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Works : GRASSE (France) & BEYRUT (Syria).

Essential Oils and Synthetics.
All Raw Materials for Perfumery.

Olive, Peach Kernel, Sweet Almond Oils
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GAL Soap that is Cream of beauty, the most delicate and most effective.

Sold by—*See list of agents on page 10*

GAL Toilet Soap

See list of agents on page 10



PERFLUMERIA GAL + MADRID

GAL Toilet Soap

REFINEMENT OF LIFE

GAL Toilet Soap

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GAL

TOILET SOAP

Nationally Advertised

TRADE TERMS.—Gal Toilet Soap retails at 1/- per tablet, and 2/9 per box of three. The price to you is 11/- per dozen tablets less 33 1/3% discount. These prices are protected by the P.A.T.A.

Order through your usual wholesaler and ask for Display material.

THE story of Gal—beauty soap of Spain—is being told to every woman in England by means of large spaces in the **DAILY SKETCH** and **DAILY MIRROR**, and full pages in colour, and black and white in the following journals:—*Woman, Good Housekeeping, Woman's Journal, Bystander, Nash's Magazine, Eve, Punch, Vogue, Sketch, Tatler, Lady, Queen, Graphic, Sphere.* Show Gal and you'll sell it. Take your profits from the many thousands we are spending to bring you business.

You get **39%** PROFIT ON TURNOVER (single tablet sales)

PERFLUMERIA GAL (LONDON) LTD., 76 STRAND, W.C.2

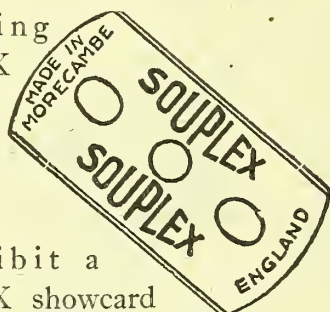
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F.S. 246

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CHEMIST
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SOUPLEX
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To exhibit a
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means quick sales and good profits.

SOUPLEX BLADES are re-
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which they shave, their lasting
keenness and remarkably low price.

Place your order *TO-DAY* with your
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for showcards to be sent with your
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FIVE
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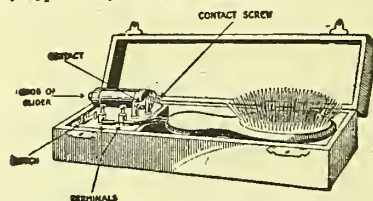
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LIMITED
MORECAMBE**

TEN
for
2/6
YOUR
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10d.

The ZENDIX ELECTRIC HAIRBRUSH

The latest innovation for the scientific treatment of the scalp, combining the stimulating effect of an electric current with the massaging effect of the brush. A continuous electric current is brought into contact with the scalp, promoting activity of the cells and stimulating the growth of hair, loosening and removing dandruff.

The current is supplied by a 4v. pocket battery and may be adjusted but is never too violent. The whole outfit is packed in a neat attractive case and makes a ready appeal to your lady customers.



RETAIL 25/- Wholesale terms on application.

ZENDIX ELECTRIC CO.
TRAFALGAR WORKS, STATION RD.
LONDON, S.W.19

"ODENTIC" PLATE BRUSH

Regd. No. 417637.

From all
Wholesalers.

Packed in 1-dozen Display Boxes.

Manufacturers:

W. R. Speer & Son (EST. 100 YEARS)
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A
**KEEN
BLADE
AT A
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PRICE**

The Blade that SELLS as it SHAVES—
"LIKE GREASED LIGHTNING!"

Obtainable from all Leading Wholesalers.

Dept. C.D. "Wanie" Distributors:
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You can't offer a substitute for Anzora

TRADE TERMS

12/- doz.
Retail at 18/-

20/- doz.
Retail at 30/-

If unobtainable from
your wholesaler write
direct to:

**ANZORA
PERFUMERY
Co., Ltd.
London, N.W.6**



ANZORA
Masters the Hair!

If you're out of stock of Anzora when a customer calls, it means a sale lost. You can't offer a substitute because there's no such thing. No imitation is quite so good, none so efficient. And once a man has used Anzora, you'll never get him to change. Better not be out of stock!

Anzora Cream for greasy scalps will not soil hat linings or pillows. Anzora Viola for dry scalps contains a little oil of violets.

A supply of Attractive Showcards and Cutouts for Window Display sent post free.

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Remedies

including the now famous

ANTI-ACID TABLETS "TOXINICON"

for Rheumatic diseases

GOLDEN-RAY SHAVING SOAP

the only soap with an Antiseptic Vaseline centre.

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Telephone: Sloane 4133.

LONDON CHEMISTS ARE INVITED TO SEND THEIR "SUNRAY" PATIENTS TO OUR PRIVATE ROOMS. TRAINED STAFF IN ATTENDANCE.

Write for particulars

DEARBORN (1923) LTD.

37 Gray's Inn Road, London, W.C.1

Telephone: HOLBORN 9669

Toilet Specialties.

	Price per doz. to Retailer	Selling Price P.A.T.A.
PILENTA SOAP 10/-	1/-	
A complexion soap.		
PROLACTUM 10/-	1/-	
For the lips.		
PARSIDIUM JELLY 10/-	1/-	
For wrinkles.		
ALLACITE OF ORANGE BLOSSOM 22/6	2/6	
A dressing cream.		
BORANIUM 22/6	2/6	
A hair tonic.		
CLEMINITE 22/6	2/6	
For a face lotion.		
COLLIANDUM (Powder & Solidc.) 22/6	2/6	
For a face tint.		
PERGOL 22/6	2/6	
A deodorant.		
TEKKO PASTE 22/6	2/6	
Camphor cream.		
STALLAX 13/6	1/6	
For a shampoo.		
JETTALINE 31/6	3/6	
For clearing the skin.		
PHEMINOL 36/-	4/-	
A depilatory.		
MENNALINE 36/-	4/-	
For the eyelashes.		
MERCOLIZED WAX 18/-	2/-	
A face cream.		
STYMOL 31/6	3/6	
For oily complexions and blackheads.		
SILMERINE 36/-	4/-	
Hair-curling fluid.		
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Dandruff eradicator.		
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For grey and faded hair.		
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To check excessive perspiration locally.		
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For whitening the hands.		
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For figure development.		
SIPOLITE 18/-	2/-	
A new depilatory.		

The Products of

Messrs. PARKER, BELMONT & CO.

CLYNOL BERRIES 36/-	4/-
For obesity.	
SOFT PALERIUM 45/-	5/-
For wrinkles.	
LIQUID NAIL POLISH 10/-	1/-
Brilliant and lasting.	

Stocked by ALL Wholesale Houses.

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YOU CANNOT AFFORD TO BE WITHOUT THE PERONIA CONCENTRATED SPORTS MODEL

It will bring the crowds flocking to your window
and the ladies into your shop.

PERONIA CONCENTRATED LAVENDER

*Retails at 1/-, Costs 8/- per dozen. The realistic
Sports Model is sent FREE with orders for 6 doz.*

A sudden hot spell and the ladies will be driven
to distraction by midges and flies. They won't
want to wait while you obtain your supply. Send
a postcard for the 6 doz. display quantity NOW to
THE PERONIA CO., LTD., Stoney St., Nottingham

STOP PRESS: The midges ARE biting. Mr. S— of L— had 6
dozen and a Sports Display on May 11th. To-day
he has ordered another 6 dozen and says: "Sports Show does bring 'em in."



GREY HAIRS
appear just here.
TOUCH THEM UP WITH
TATCHO-TONE
and they will instantly recover their
natural shade. Medical Guaranty with
each bottle. Chemists' Prices 2/6 and 4/6

Trial Phila
8^d
Post Free

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PERM BROW
The Waterproof Liquid

To
Beautifully your Eyes



MIRUS LTD.

Every bottle
gives you **1/3**
PROFIT
and repeats always
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Perm Brow, the new
perfectly harmless
liquid eyebrow beauti-
fier blackens eyebrows
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Its unique qualities
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to-day, and give it a
display - profits will
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Obtainable from all
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MIRUS LTD.,
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Office:
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Wholesale

18/-

per doz.

Retail

2/9

per bottle.

**Are you missing—
or making—that
50% profit on
Myatt Blades?**

**They are being asked
for more and more
every day.**

Ask your wholesaler for

MYATT

PATENT DAYMARK

Blades

For Gillette Type Razors only.

Sole Manufacturers:

W. J. MYATT & CO., LTD.,
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FIVE for 1/3
TEN for 2/6
Less
33 1/3%
A PROFIT of
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ON COST.



Where brilliant & plentiful light without glare is wanted, use "Cosmos" Pearl Lamps.

Ask your Supplier for them by name—they are made by **MET-VICK**

THEY COST NO MORE!

15w 25w 40w 60w

2/-

100w

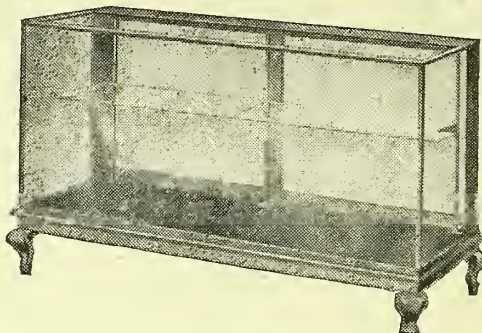
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For 230v. Id. less than above

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King's for Showcases.



No. D.S.R. Solid oak or mahogany frame glass counter. First quality drawn plate glass front, top and sides, with two clear glass sliding doors at back. Interior fitted with standard bars and brackets and one row of plate glass shelves, polished all round, 12 ins. wide.

Size over all: 6 feet long x 3 feet high x 2 feet back to front.

£12 10 0

Ex works.

Insured free in transit.

This showcase can be supplied on a first payment of

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Send at once for full list No. 933 post free.

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METALLIC CAPSULES
FOR ALL KINDS OF BOTTLES AND JARS,

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REDUCED*Luxé***PRICES****"Crêpsyl"**(WOVEN CRÊPE)
Dainty and ideal for understocking wear.**Silvick** Prices remain
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BANDAGES****BEWARE OF IMITATIONS AND COPIES**

There is only one Crêpsyl Bandage and only one Silvick. Passing off illegal and actionable.

"Crêpsyl"BANDAGE widths from 2 inch to 4 inch $\frac{1}{8}$ to $\frac{3}{4}$ each
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(All binders reinforced to prevent sagging).

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6 NORFOLK STREET, SHEFFIELD.Kept BEST
by Test—a scientific test
that reveals the
least variation
from RODGERS'
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Write for full details.

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Designers and actual manufacturers of

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For the MODERN PHARMACY.

Shop Fronts, Show Cases, Exhibition Cases, Counter
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PHARMACIES MODERNISED.

ALL GOODS OF BEST QUALITY
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106 DUKE STREET, LIVERPOOL.**GLASS BOTTLES**Large Stocks of PHIALS, PANEL FLATS, COUGH
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Telegrams : "Youldon, Ave, London."



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The Mead Portable is Everybody's Type-writer for use everywhere—easy to operate and easy to pay for. Its mechanism is far superior to any other Portable—visible writing—more characters (88)—lighter touch. Two-colour ribbon and stencil device—full size 4-bank keyboard. Light—easily carried case. Weight 9½ lbs.

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GUARANTEED
FOR 2 YEARS

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Payments of 16/8

Complete in hand-
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Write for full details and free Illustrated Booklet P52

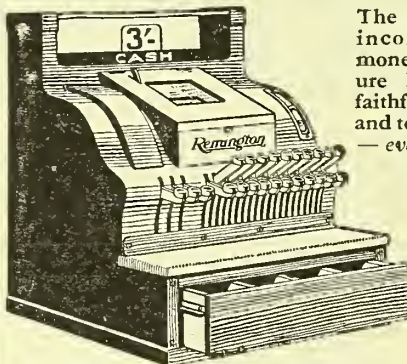
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Also at High-Class Typewriter Dealers & Stores

"To Err is Human"

Sooner or later the truth of this adage is deplored in the business which keeps no mechanical record of sales. Time has proved human reckoning a costly affair.

Safeguard your business. Protect it from losses... through mistakes or otherwise. Install a REMINGTON Cash Register.



The REMINGTON incorporates every money-guarding feature known. It will faithfully record, add and total automatically—every transaction. It will never leave margin for human error.

May we send you particulars?

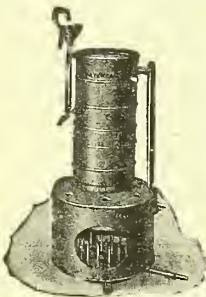
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Brown's Stills are perfectly automatic. Can be run night and day without attention. Patented in U.K. and Continental Countries.

Extraordinarily efficient and economical. Made for gas, steam, oil or coke fire heating.

Full particulars and prices free on application

BROWN & SON,

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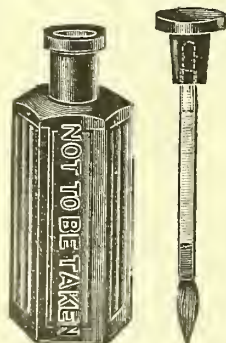
NURSE HARVEY'S MIXTURE

A safe, simple and reliable remedy for Children's Ailments is advertised so extensively in the daily and weekly Press as to bring mothers to the retailer without effort on his part.

The selling has been done before the mother reaches the chemist, and, having supplied her, it is only common sense to claim she will buy other family necessities from him. Moreover, the continuous demand for it produces a quick turnover.

For Direct Terms apply to—

OSCAR SCRUTON & CO., YORK



IODINE BOTTLES

Blue or Green, Hexagonal or Flat (very small).

Fitted with Flange, I.R. Corks and Brushes.

Perfect Bottle	1/2 oz.	1 oz.	1 1/2 oz.	2 oz.
Perfect Brush	20/-	22/-	24/-	26/- gross
Perfect Fitting	5 gross lots assorted Carriage Paid.			

M. J. FECHER, LTD., Cuckoo House, Dod St., LONDON, E.14

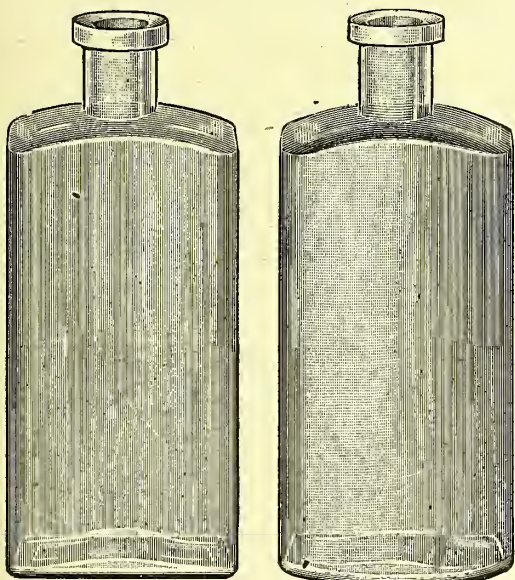
Beatson, Clark & Co.

LIMITED

Chemical & Medical Glass Manufacturers

ROTHERHAM, YORKS

*The Chemists who are doing
the business are the Chemists
who turn the work out well.*



Round Cornered Flat

Oval Fronted Flat

*There is no better help than
a smoothly finished, bright,
attractive bottle.*

TRY THE NO. 2 WHITE QUALITY
REASONABLE IN PRICE
SATISFACTORY in FINISH

Telegrams :
BEATSON, ROTHERHAM.

'Phone :
No. 88, ROTHERHAM

ESTABLISHED 1751

Bottles & Glassware

of every description

Wholesale Only

EXTENSIVE & WELL-
ORGANISED WORKS
enable us to quote
competitive prices and give
prompt deliveries.

We invite enquiries for
bottles of every description
—hand or machine made.

Immediate delivery from
stock of all kinds of

**DISPENSING
EMULSION
EMBROCATION
FEEDING BOTTLES**

&c., &c.

If well-made bottles of perfect
finish interest you, ASK US
TO QUOTE.

BUY BRITISH BOTTLES !

Lax & Shaw


(Regd. Office)
**ALBERT
GLASS
WORKS**

LIMITED

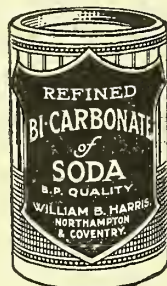
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Tel. No. :
21568 (2 lines).



**ROBINSON'S of
CHESTERFIELD**
for
**CARDBOARD
BOXES**
ROUND · OVAL · SQUARE · FOLDING
ROBINSON & SONS LTD.
CHESTERFIELD & LONDON



BEADED BOXES

The boxes illustrated above are finding increasing favour amongst chemists. They are dust-proof and air-tight and of a very attractive appearance. Fitted with a flanged metal lid which is easily lifted out they form a very useful container.

Blank panel on reverse side for printing in Customer's name and address.

ROBINSON & SONS, Ltd.

Manufacturers of ROUND, OVAL, SQUARE AND FOLDING
CARDBOARD BOXES.

CHESTERFIELD

58,000,000

**More than
fifty-eight million impres-
sions of Bob Martin advertise-
ments** will be printed and distributed
between mid-June and mid-July in the—

SUNDAY PICTORIAL, NEWS OF THE WORLD,
DAILY MAIL, DAILY EXPRESS, DAILY CHRONICLE,
DAILY NEWS, DAILY SKETCH, DAILY MIRROR,
JOHN BULL, HOME NOTES, Etc., Etc.

Practically every dog owner in your neighbour-
hood will wish to try Bob Martin's Tasteless Con-
dition Powders. Be sure to let them know that you
can meet their demands; a Bob Martin display
takes up very little room and is most profitable.



2 doz. 6d. Condition Powders (Mixed)	- 7 6
1 doz. 6d. Disinfectant Powders	- 1 10
1 doz. 6d. Worm Powders	- 2 3
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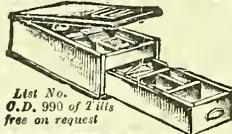
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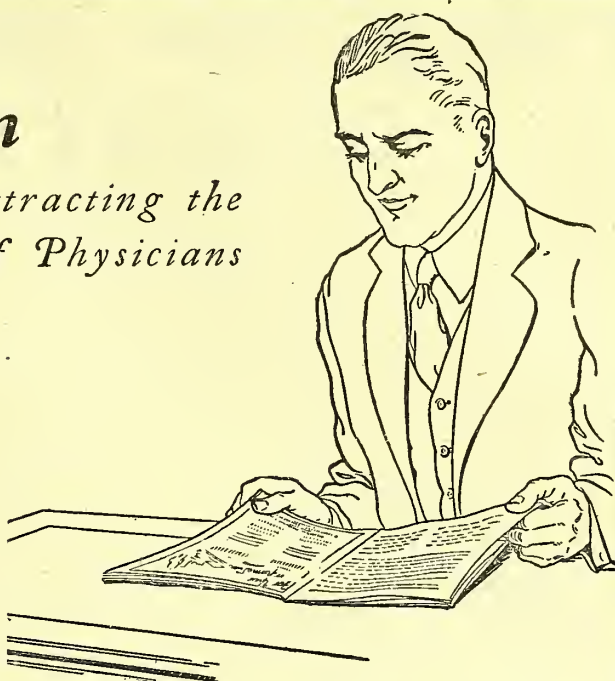
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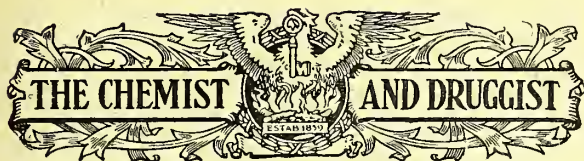
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Coming Events

Wednesday, June 26

Edinburgh Chemists' Golf Club. Outing to Lothianburn course.

Thursday, June 27

Pharmaceutical Society of Great Britain, Cambridge and District Branch, King's Parade, at 2.15 p.m. Annual outing to Saffron Walden. Tickets 4s. each.

UNDER the will of the late Mr. J. J. Jackson, Ph.C., Hereford, the City Council receive the sum of £7,000 for charitable objects

SOBO RUBBER SPONGE PRODUCTS, LTD., has acquired the business and other assets of the Sponge Rubber Seat Co., Ltd. Mr. Francis J. Walmsley, the chairman of that company, will join the new Board.

English and Welsh News

The Editor will be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

New Agricultural Research Station

The new agricultural research station of Imperial Chemical Industries, Ltd., at Jealott's Hill, Warfield, will be formally opened by the Rt. Hon. J. H. Thomas, M.P. (Lord Privy Seal), on June 28. The research station comprises two farms, Jealott's Hill and Nuptown; the acreage of the former is 360, and that of the latter 76. The Jealott's Hill station is the new research headquarters of Nitram, Ltd., the distributive and research organisation for the farm fertilisers side of Imperial Chemical Industries. The research station is equipped with magnificent laboratories for analytical work of all kinds, such as the examination of soil and fertilisers, and for research into such subjects as animal nutrition, biochemistry, botany, plant physiology, bacteriology, and general microbiology. Nuptown has been set aside entirely for trials on the production of baby beef. At the artificial manure shed will be displayed samples of all types of British produced fertilisers, manufactured by Imperial Chemical Industries, Ltd. At the greenhouses will be given demonstrations of the effect of different fertilisers.

Birmingham

Birmingham University Council has appointed Dr. W. Stiles, F.R.S., Professor of Botany in the University of Reading, to be Mason Professor of Botany.

Although the sports day of the Birmingham Pharmaceutical Association at Rednal on June 12 was marred by continuous rain, about eighty members and friends were present. All the outdoor sports had to be abandoned, and an impromptu whist drive was arranged. Mr D. J. Rushton (secretary) acted as M.C. Thanks are due to Southall Brothers & Barclay, Ltd., Mr. and Mrs. E. W. Mann, Mr. and Mrs. Buckingham, Mr. and Mrs. F. Smith, Mr. Maurice Smith and Mr. G. Knowles for prizes provided. The winners were Mrs. F. Smith, Miss M. Smith, Mrs. D. J. Rushton, Mrs. H. Buckingham, and Messrs. C. J. Hill, W. H. Stephens, R. Thorne, J. Frost, P. R. Collis, J. Kernick, and T. H. Foden (president).

Bradford

Mr. Parker (Brook, Parker & Co., Ltd., manufacturing chemists), who had a nasty motor accident recently, is going on quite well and hopes to be in business again in about a week or ten days.

The pharmacy students of the Bradford Technical College visited the laboratories, offices and warehouses of Goodall, Backhouse & Co. on June 12. The party, under the guidance of Mr. J. W. Cooper, Ph.C., was met and conducted through the offices and warehouse by Mr. T. A. Mitchell, chemist in charge of the wet department, and Mr. G. Wright, Ph.C.; afterwards they were taken through the pharmaceutical laboratories, drug stock rooms, packing rooms, drug grinding and tin-box making departments at the Sovereign Street works. After an interesting and educational afternoon the party was entertained to tea by Mr. W. P. Bowman, the proprietor of the firm, to whom a hearty vote of thanks was accorded.

Liverpool

Miss Beatrice Wakefield, an assistant at Messrs. Boots' Branch in South Road, Waterloo, collapsed on the Palace Pier, Brighton, on June 15, and died in hospital.

There is a remarkably effective photographic window display at the shop of Mr. John H. Robinson, Tithebarn Street, near the entrance to Exchange Station. The chief feature of the display consists of photographs, framed or on easels, of the beauty spots of the Lake District. The passer-by is invited to spend his or her holiday in that district, to which Mr. Robinson is intensely attached, and to purchase some of the holiday requisites shown in the window (see p. 738).

Manchester

The annual picnic of the Manchester Pharmaceutical Association has been fixed for July 10, leaving Albert Square by motor saloons at 1.30 p.m. Tickets, 12s. 6d.

each, inclusive, may be obtained from the secretaries or any member of the Council.

At Manchester Police Court, on June 12, Mr. Jacob Siroto, chemist and druggist, Bury New Road, Cheetham, was fined 20s., with 10s. 6d. costs, on each of two summonses for having sold distilled water and lime water not of the nature, substance and quality demanded. It was stated that the lime water was deficient in strength by 50 per cent.

In the Manchester Chancery Court, on June 17, an action was brought by the Veno Drug Co. (1925), Ltd., against Hermoline Products, Ltd., and Joseph Edward Burton, manufacturing chemist, Carr Road, Nelson. The plaintiffs alleged that the word "Hermoline" was an infringement of their registered trade mark "Germolene," and asked for interlocutory injunctions until the trial of the action restraining the defendants from using the word, and from doing anything to represent their products as being manufactured by the plaintiffs. An affidavit by Mr. H. Gregory, managing director of the plaintiff company, was put in, and a reply by the defendant. The Vice-Chancellor said when the action came to be tried the position might be different, but as the evidence stood there was nothing to sustain an action for passing off. He made no order on the motion, except that the costs be costs in the action.

Miscellaneous

POISON-LICENCE APPLICATION.—C. S. Gillard and E. C. W. Gillard, trading as C. S. Gillard & Son, North Curry, have applied to the Somerset County Council for a licence under Section 2 of the Poisons and Pharmacy Act, 1908.

IN THE COURTS.—In Lambeth County Court, London, on June 11, the Pharmaceutical Society obtained judgment in the sum of £5 against Shaw & Findlay, Brixton Road, S.W., for improperly using the title "pharmacist."—At Wolverhampton Police Court, on June 14, a shopkeeper, whose name was not mentioned, was fined £3, with 13s. 6d. costs, for having sold borax containing 400 parts of arsenic per million.—At Chatham Police Court, on June 17, W. A. Young, alias D. T. Frazer, was sentenced to twelve months' imprisonment for being in unlawful possession of morphine tablets.

Scottish News

Edinburgh

The Albert medal of the Royal Society of Arts for the current year has been awarded to Sir Alfred Ewing, Principal of Edinburgh University, for his work on magnetism and his services to technical education.

Glasgow

In Glasgow Sheriff Court, on June 13, Claude Douglas Fortesque de Ramsay (35) pleaded "Guilty" to charges of having obtained drugs by fraud. It was stated that the accused posed as a medical practitioner. Sentence of sixty days' imprisonment was imposed.

In Glasgow Sheriff Court, recently, the Pharmaceutical Society obtained judgment against five unqualified assistants to medical men for having sold scheduled poisons. The amount recovered in each case was 30s., including expenses. The hearing of other cases of a similar nature was adjourned.

Irish News

Belfast

At a meeting of the Libraries and Art Committee of the Belfast Corporation, on June 14, Sir Thomas McMullan, a member of the Committee, was heartily congratulated by his colleagues on the knighthood conferred upon him by the King.

An enjoyable social function took place in the Grand Central Hotel, Belfast, on June 14, when a presentation was made to Miss Nora Hutchinson, on the occasion of her marriage to Mr. T. Wilson by the staff of Fred Storey, Ltd. Mr. Fred Storey, managing director, occupied the chair. The presentation took the form of a tea service. Complimentary speeches were made by Miss Thompson, Miss Niblock, Mrs. Murphy, Messrs. W. Blair, I. McClenaghan, W. Lindsay, A. H. Storey and the chairman, to which Mr. and Mrs. Wilson suitably replied. A musical programme followed.



Photo]

A HOLIDAY WINDOW WHICH HAS BROUGHT CUSTOM

[Martin

Wake Up, Pharmacy!

THE striking editorial article "A Silent Revolution" in THE CHEMIST AND DRUGGIST of June 8 has drawn attention to a most insidious method of undermining retail trade, and retail pharmacy in particular. It is not easy, however, to believe that pharmacists will suffer more than other traders. In the first place, the retail chemist has smaller returns and, at the same time, no larger percentage of profit than most other retail businesses. Then he has heavier competition in the form of multiple shops to contend with. Further, there are more burdens under Acts of Parliament, Regulations and Orders governing existence for the chemist than any other retail trader. The chemist's application of his art has provided the essentials for photographers, sweet-makers, aerated water manufacturers, invalid food makers, perfumers, and other classes, apart altogether from drugs and chemicals. Yet all sorts of retailers dip their hands into the more profitable parts of the chemist's legitimate trade.

There is, too, the competition of the multiple shop and the large stores where everything in the way of goods and services can be obtained. This form of competition is the kind that will be most formidable on the lines indicated in the *C. & D.* article, for these firms can afford to continue on the course long after the individual chemist has had to cease. All retailers of the individual variety are suffering the same in this way. Here is the complaint of an antique dealer in a well-kept, clean, smart little shop just off one of London's main thoroughfares:—

"Until recently I did very well. Now the class of people who used to buy from me simply cannot afford to do so any more. The wealthier people, who, generally speaking, have no confidence in their own judgment, go to the larger shops, relying on a name for the goods they want. They pay more, and often get goods that are not entirely genuine. Anyhow, the small dealer is gradually being crushed out of business."

That is typical of all kinds of retailers. Governments come and governments go, but the small shopkeeping class having no trade union, little voting strength and little influence, is ignored. Even in such bodies as chambers of trade the larger firms have the influence and power. There is also the well-organised co-operative society movement. Here one has an organisation bent on getting rid of the P.A.T.A. In the *questionnaire* sent out to candidates in the recent general election the points were put very plainly, even if illogically, and the definite statement was made that a Bill would be introduced in the next Parliament to make the P.A.T.A. and similar bodies and their methods illegal. These are some paragraphs taken from the letter accompanying the *questionnaire* and a copy of the document itself:—

Price Maintenance Associations.—The price-fixing associations operate in deliberate restraint of trade by stopping supplies not only to retailers who refuse to accept their conditions, but also to all merchants and wholesalers who dare to supply recalcitrant traders. Canada and certain legislatures in the United States have declared the operations of a Proprietary Articles Traders' Association illegal. In Canada a similar Association has been dissolved as an illegal restraint upon trade.

Health Insurance Prescriptions.—The Ministry of Health has, at the request of trade competitors, issued regulations prohibiting the payment of co-operative dividend on National Health prescriptions dispensed by drug departments of co-operative stores.

The letter adds:—"The boycott has been directed specifically towards the prevention of Co-operative Societies securing for their members economies in the cost of living." The *questionnaire* is in the following terms:—

Will you support legislation to make the restrictive operations of price maintenance associations illegal?

Are you willing to support the demand for an inquiry into the methods and effect of the P.A.T.A. and other price-maintenance associations?

Will you vote for the repeal of the National Health Insurance regulation prohibiting the payment of co-operative society dividend on N.H.I. prescriptions dispensed by co-operative drug departments?

The P.A.T.A. Executive authorised the dispatch of a letter to candidates. The letter included the following passages:—

The Proprietary Articles Trade Association is an organisation of manufacturers, wholesalers and retailers of proprietary, medicinal, "patent food," and toilet products, whose object is to ensure that the trade union principle of a fair wage for services rendered is applied to the distributors of the products of these manufacturers. The Association was formed to prevent the widespread "price-cutting" which was rampant in the drug trade years ago, and which led to substitutes for advertised products being forced upon the public by retailers who did not wish to conduct their business on a basis that was not only unprofitable, but often resulted in a dead loss to them. The Association ensures that a fair rate of profit is now obtained by all distributors of such goods, and the prices fixed by the manufacturers for their products (prices which naturally must be fair and reasonable if popular demand is to be maintained) are binding on all sellers, whether private traders or co-operative societies. There is no boycott of co-operative societies by the P.A.T.A. Nearly one thousand retail co-operative societies as well as the Co-operative Wholesale Society are freely supplied by P.A.T.A. manufacturers and wholesalers, and the only requirement made of these societies is that they shall sell the goods on the same terms as private traders and shall not compete unfairly with the private trader by giving bonus or dividend. . . . the operations and activities of the P.A.T.A. were fully investigated by a special committee appointed under the Profiteering Act, and that committee found that the system which the Association represents (fixed retail prices) was to the advantage of the public.

How the questions were answered by the different parliamentary candidates it would be difficult to guess; but one whose answer I have seen took a line something like the following:—

"For some years I have had an opportunity of seeing the other side of the picture, and it is within my knowledge that not only is there no boycotting of co-operative societies by the P.A.T.A., but both wholesale and retail societies are supplied with goods by both wholesalers and manufacturers who are members of the P.A.T.A. The only requirement, which any fair-minded person would accept, is that the purchasing society shall sell the goods on the same terms as private traders without any unfair competition. In reference to the dispensing of prescriptions under the N.H.I. Acts, I should oppose the paying of dividend on such prescriptions, for it would tend to encourage people to have medicine they did not need. Also it would be a dangerous thing for patients if it became possible for the highest bidder of either dividends or presents to get the trade. Though I approve of doing everything possible to prevent restraint of trade, I cannot see how your societies suffer from the causes you mention." Such a reply, with a request for a personal interview, brought no response.

Pharmacists must wake up. Much has to be done, and many of the ramparts of protection secured by the work of public-spirited men will have to be manned again or they will be stormed.—CENTRALITY (18/6).

Business Changes

BOOTS (WESTERN), LTD., have purchased the business of Mr. W. S. Spicer, Ph.C., as from June 24.

MR. GWILYM H. HUGHES, chemist and druggist, is commencing business at 24 High Street, Conway.

MR. A. M. KNEALE, chemist and druggist, has commenced business at 67 Scaview Road, Wallasey.

MR. C. GOODE, chemist and druggist, King Street, Twickenham, is removing to London Road, Twickenham.

MR. IDRIS THOMAS, chemist and druggist, has recently taken over the Talbot Pharmacy, 3 Talbot Street, Maesteg.

THE London office of the Autoway Co., weighing machine manufacturers, has been moved to 51 Farringdon Road, London, E.C.1.

MR. STANLEY F. BROCKINGTON, chemist and druggist, has purchased the business of Mr. J. W. Catford, chemist and druggist, at South Brent, Devon, as on June 22. Mr. Catford is retaining his business at Oreston, Plymouth.

British Pharmaceutical Conference

A SPECIAL MEETING of the Galen Masonic Lodge, No. 475, has been arranged for Friday evening, June 28, at 7.30 p.m., in the Grand Lodge Room, Freemasons' Hall, Molesworth Street, Dublin. Conference visitors wishing to attend will please communicate with the honorary secretary, Galen Lodge, No. 475, at above address, on or before June 25, when full particulars will be sent. The First Degree, according to Irish Ritual, will be demonstrated.

All qualified women attending the British Pharmaceutical Conference in Dublin are invited to attend a meeting arranged—by courtesy of the Conference Executive Committee—to discuss questions of interest to women in pharmacy. The time and place of meeting will be posted on the notice board at the Conference headquarters. It will be appreciated if intending speakers will kindly notify the Honorary Secretary (Miss Hodgkinson), National Association of Women Pharmacists, 115 Priory Road, Hornsey, London, N.8, of any subject they wish brought forward.

The following is a list of the science papers to be presented at the forthcoming meeting of the British Pharmaceutical Conference at Dublin on June 25 and 26:—

- "On the Standardisation of Cinchona Febrifuge," by David Hooper, LL.D., F.I.C.
- "The Densities of Substances used in Suppositories," by Thomas J. Smith, M.P.S.I.
- "The Making of Hollow Suppositories. A Modification of Morgan's Method," by Thomas J. Smith, M.P.S.I.

- "The Stability of Syrupus B.P.," by W. J. Beardsley, Ph.C., and F. J. Bolton.
- "Some Notes on the Determination of Nitrates in Bismuth Carbonate," by G. J. W. Ferrey, B.Sc., F.I.C.
- "The Petroleum Spirit Test for Purity of Castor Oil," by T. Tusting Cocking, F.I.C., and Sydney K. Crews, A.I.C.
- "Some Notes on Our Native Materia Medica," by M. V. Sargent, A.R.C.Sc.I., A.I.C.
- "Some Observations on the Antimony Trichloride Colour Test for Vitamin A," by Norman Evers, B.Sc., F.I.C.
- "The Volumetric Determination of Phosphoric Acid," by Wilfred Smith, B.Sc., A.I.C.
- "A Note on Extract of Gentian," by H. Davis, Ph.C.
- "The Gravimetric Electrodeposition of Metals and its Application to Pharmaceutical Chemicals," by S. Gordon Liversedge, F.I.C.
- "The Use of Aldehydes and Di-hydroxy-acetone in the Detection and Differentiation of Phenols," by Alan H. Ware, Ph.C. (I) Colour Reactions given in Sulphuric Acid Solution; (II) Precipitation Tests involving the use of Hydrochloric Acid. (III) A Note on the Detection of Crezol in Carbolic Acid by means of Vanillin.
- "Some Distinctive Tests for Phenols involving the use of Hydrogen Peroxide," by Alan H. Ware, Ph.C.
- "The Assay of Hyoscyamus Leaves and Extract of Hyoscyamus B.P.," by Charles M. Caines, F.I.C.
- "A Note on the Keeping Properties of Unguentum Belladonnae B.P.," by Charles M. Caines, F.I.C.
- "The Oxidation of Ether. The Effect of Certain Gases," by F. C. Hymas, B.Sc., A.I.C., and G. Middleton, B.Sc., A.I.C.
- "Photochemical Methods of Testing Sources of Ultra-Violet Radiation," by F. C. Hymas, B.Sc., A.I.C.
- "A Note on the Potency of Digitalis lanata," by Frank Wokes, B.Sc., F.I.C., Ph.C.

Some of Dublin's Lady Chemists



MISS N. E. BROWN



MISS E. E. COX



MISS S. HOSFORD



MRS. E. M. MAHER

Pharmaceutical Society of Ireland

Council Meeting

THE monthly meeting of the Council of the Pharmaceutical Society of Ireland was held at 67 Lower Mount Street, Dublin, on June 11, Mr. F. J. Fitzpatrick (president) in the chair. The following members of the Council were also present:—Mr. D. J. Nugent (vice-president), Dr. M. S. Ryan (treasurer), Dr. J. A. Walsh, Dr. J. A. Mitchell, Sir Thomas Robinson, Messrs. Patrick Brooke Kelly, Michael J. Kieran, D. Warwick, P. Kieran, P. D. Larkin, Joseph Gorry, J. J. R. Kerr, J. J. Roche, James McCormack, J. Doyle, John Smith, and P. A. Brady.

CHANGES OF ADDRESS

The following notified changes of address:—

Mr. J. C. Boyle, Ph.C., to 37 Antrim Road, Belfast;
Mr. Hugh McElhinney, R.D., to 28 Morehampton Road,

Donnybrook; Mr. Christopher Murphy, R.D., to Ivernia, Mountinview Road, Ranelagh; Mr. D. J. O'Hanlon, Ph.C., to 25 Above Bar, Southampton; Dr. F. E. Preston, Ph.C., to Chelston, St. Mary's Avenue, Wanstead, Essex; Mr. John Smith, Ph.C., to 1 Old Cabra Road, N.C. Road, Dublin; Mr. N. E. Sutton, Ph.C., to 12 Lawley Street, Clapton, London, E.5; Mr. C. H. Williams, Ph.C., to 7 Christchurch Place, Dublin; Miss Una Thompson, Ph.C., to 24 Leeson Park Avenue, Ranelagh, co. Dublin.

PRELIMINARY REGISTRATION

Mr. J. D. Daly and Mr. D. J. Murphy submitted certificates for other bodies, and were admitted to preliminary registration.

REPORTS FROM COMMITTEES

Reports from the Law Committee, the House Com-

mittee, and the Benevolent Fund Committee were received and adopted.

A vote of thanks to Mr. F. J. Barragry, Ph.C., for a subscription of £1 1s. to the Benevolent Fund was passed.

REPORTS OF DEATHS

The registrar reported the deaths of Mr. David Baxter, Ph.C., Ballymoney, co. Antrim, on March 23; Mr. William Henry Wallace Ph.C., Hamilton, Victoria, Australia, on March 12; and Mr. James Byrne, R.D., Clonmel, on January 19.

RE-ELECTION OF PRELIMINARY EXAMINER

On the motion of the TREASURER, seconded by the VICE-PRESIDENT, Miss Mary Cotter, B.A., was re-elected Preliminary Examiner for the ensuing year.

REGISTRAR TO THE SOCIETY

A discussion took place in reference to the position of registrar to the Society, arising out of a notice of motion given by Mr. Larkin to the following effect:—"That the Council make the necessary arrangements for the appointment of registrar to the Society." It was mentioned in the course of the discussion that the appointment of Miss Grene to the position was a temporary appointment.

Ultimately the following resolution was passed:—

"That a committee be appointed to arrange terms and conditions of appointment for a registrar, the committee to consist of the president, vice-president, hon. treasurer, Mr. Larkin, and Mr. Warwick."

ELECTIONS AND NOMINATIONS

On the motion of the PRESIDENT, seconded by the VICE-PRESIDENT, Mr. Gerald Morewood, Ph.C., 47 Franconia-road, Clapham Park, London, S.W.4, was elected a member of the Society. The following were nominated for membership:—

Mr. C. V. Bolton, Ph.C., Standard House, St. Patrick's Bridge, Cork; Mr. Robert N. Boyd, Ph.C., 33 Parkgate Street, Dublin; Mr. P. P. Buckley, Ph.C., 160 Church Road, North Strand, Dublin; Mr. L. P. Cockrill, Ph.C., Medical Hall, Clonakilty, co. Cork; Mr. M. J. Cogan, Ph.C., 19 St. Mary's Street, Dungarvan, co. Waterford; Mr. S. J. Collins, Ph.C., O'Curry Street, Kilkee, co. Clare; Mr. C. M. Cotter, Ph.C., 32 St. Anne's Road, Drumcondra, Dublin; Miss C. C. Cregan, Ph.C., 63 North Circular Road, Dublin; Miss Kathleen Fogarty, Ph.C., 61 Palmerston Road, Rathlimes, co. Dublin; Mr. George Gilmore, 19 Patrick Street, Kilkenny; Mr. M. J. Hardy, Ph.C., Foxford, co. Mayo; Miss Isabella C. Hayes, Ph.C., Dundrum Pharmacy, Dundrum, co. Dublin; Mr. Thomas Hayes, Ph.C., Kilcullen Pharmacy, Kilcullen, co. Kildare; Mr. Alex. Herriott, Ph.C., 9 Castle Street, Nenagh, co. Tipperary; Mr. Owen Lynch, Ph.C., Rathangan, co. Kildare; Mr. C. Mannin, Ph.C., 9 Townsend Street, Dublin; Mr. Patrick J. Moloney, Ph.C., The Medical Hall, Main Street, Tipperary; Mr. Wm. MacCarthy, Ph.C., 5 St. John's Terrace, Clontarf, co. Dublin; Mr. Daniel J. Nolan, Ph.C., Castleisland, co. Kerry; Mr. Eugene R. Owen, Ph.C., Medical Hall, Dunmanway, co. Cork; Mr. David Rea, Ph.C., Rosemary Street, Roscrea; Mr. Francis P. Reynolds, Ph.C., The Medical Hall, Carndonagh, co. Donegal; Mr. John K. Shanahan, Ph.C., Medical Hall, Castleisland, co. Kerry; Mr. J. Vaughan, Ph.C., Medical Hall, Nenagh; Mr. H. Weir, Ph.C., Medical Hall, Mullingar; Mrs. C. M. Wilson, Ph.C., 18 The Beach, Cobh, co. Cork; Mr. Louis J. Walsh, Ph.C., The Medical Hall, Navan; Miss Mary Walsh, Ph.C., Medical Hall, Maghera; Miss Mary O'Regan, Ph.C., Foxrock, co. Dublin; Mr. Timothy Arnold, R.D., Virginia, co. Cavan; Mr. Gerald V. Boyd, R.D., "Glensavage," Blackrock, co. Dublin; Mr. Eugene Buckley, R.D., Main Street, Ennistymon; Miss Teresa M. Cleary, R.D., Rexall Pharmacy, Hospital, co. Limerick; Mr. M. P. Cronin, R.D., 6 Woodville Road, Dublin; Mr. R. C. Curtis, R.D., 135 Barrack Street, Waterford; Mr. P. J. Moran, R.D., Askaton, co. Limerick; Mr. James L. McKernan, R.D., Vicar Street, Tuam; Mr. F. MacManus, R.D., Market Street, Trim, co. Meath.

Satisfaction was expressed at the remarkable accession to the membership of the Society.

At Tunbridge Wells a bronze memorial plaque has been unveiled in memory of the third Lord North, who in 1606 discovered the chalybeate waters that made the town famous.

Summer Outings

Liverpool Chemists at Bolton Abbey

ABOUT 100 members and friends of the Liverpool Chemists' Association participated in the annual picnic to Bolton Abbey on June 12. Lunch was served on the train. The abbey was reached at 4 p.m., and though rain fell, the excursionists made the best of the time at their disposal. The inspection of the ruins proved highly interesting. Supper was served on the train on the return journey. Included in the party were Mr. L. Moreton Parry, president of the Pharmaceutical Society; Mr. J. J. Wallbridge, president of the Association, and Mrs. Wallbridge; Mr. and Mrs. John Jones, Mr. and Mrs. J. L. Hirst, Mr. and Mrs. Martin Hughes, Mr. and Mrs. Furniss, Mrs. Humphreys Jones, and Mr. G. L. Clubb, secretary, who was congratulated on the excellence of the arrangements.

Sporting Events

THE Edinburgh Chemists' Golf Club held the fourth outing of the season over Gullane No. 1 Golf Course on June 12. The captain's prize was at stake, and scores were also taken for the golf trophy. Mr. W. J. Nair won the captain's prize with a score of 74. Misses W. S. Spence, W. G. McNab, and W. A. M. Houston tied for second place with scores of 81.

THE annual golf match for the Rainy-Brown trophy between Edinburgh and Glasgow chemists was played over Muirfield championship course recently, when the Glasgow players were the guests of their Edinburgh *confrères*. The results were as follows:—

Edinburgh		Glasgow	
A. Henderson (capt.)	1	J. W. Erasmussen (capt.)	0
J. D. Lunan	1/2	T. McKinstrey	1/2
Jas. Finlay	0	C. Milburn	1
J. Sinclair	0	K. McKenzie	1
A. Kearney	0	B. Christie	1
H. Skinner	0	J. McDonald	1
W. J. Jack	1	J. Hart	0
D. N. Philp	1	D. G. McKenzie	0
A. R. Smith	0	A. Scott	1
R. Butchart	0	A. Taylor	1
W. McIntosh	1	E. Blyth	0
A. H. Gillies	1	R. Pollock	0
J. J. Stone	0	J. Adam	1
T. C. Campbell	0	D. Coutts	1
R. D. Douglas	0	T. McMaster, jr.	1
J. H. Scroggie	0	J. Anderson	1
W. G. McNab	0	D. Hogg	1
J. P. Gibb	1	D. Halliday	0
R. L. Munnoch	0	D. McKenzie	1
M. Scott	1	A. Aitken	0
	7 1/2		12 1/2

THE eighth annual sports meeting of the Eno Recreation Club was held at their ground at Catford recently, under the patronage of the chairman (Lieutenant-Colonel F. A. Allhusen) and the board of directors. As usual, the office competed against the works for the Allhusen cup for gentlemen, and the Swinfen-Brown bowl for ladies. These were won by the works with an aggregate of 68 points and 52 points respectively. The Toronto challenge cup for gentlemen was won by H. Ayres (works), with an aggregate of 6 points, G. Goding being runner up with 4 points. The New York challenge cup for ladies was won by Miss Halliday (works) with an aggregate of 6 points, Miss H. Boon being runner up with 3 points. Some novel features were a ladies' cricket match and a game of sack ball. There were also many amusing side shows, including a fortune-teller. Before the prize distribution, Colonel Allhusen presented to Mr. Draper (assistant sales manager), on behalf of the employees, a lacquer clock in appreciation of the able manner in which he, as secretary, had organised the previous seven meetings. Mrs. E. H. Drake distributed prizes to the successful competitors. Among the other directors present were Mr. R. W. Coit, Mr. R. H. Drake, Mr. E. Stevens Spicer and Lieutenant-Colonel the Hon. C. E. Vesey. Mr. George Heslop also attended and renewed old friendships. The day was rounded off with a successful dance in the pavilion.

Legal Reports

Irregular Sale of Poison.—In Airdrie Sheriff Court, on June 7, John Laidlaw, Station Road, Shotts, managing director of Shotts Apothecaries, Ltd., was charged by the registrar of the Pharmaceutical Society with having, he not being a duly registered chemist and druggist, sold a bottle of lysol. The defendant was also charged with selling the bottle of lysol without a label bearing his name and address. He pleaded "Guilty." Mr. W. P. Russell, who appeared for the prosecution, stated that this illegal sale had been discovered through the girl to whom it was sold having drunk a quantity of the lysol in an attempt to commit suicide. Mr. J. A. Reid, for the accused, said he supplied it in good faith. The sheriff imposed a penalty of £3 for selling without being registered, and of £1 for failing to label the bottle.

Trader Fined.—At Lambeth Police Court, London, on June 14, Hyman Denton, Acre Lane, Brixton, S.W., was summoned for selling lysol in a bottle not labelled with the name of the seller. The defendant was also summoned for carrying on business under a name which did not consist of his true surname without addition other than his true christian name, or the initials thereof, and for failing to register such business name. Mr. E. F. Barker, appearing in support of the summonses, said the defendant carried on business at the Arcade Pharmacy, Market Row, Brixton. An inspector of the Pharmaceutical Society went to the premises and purchased a bottle of lysol, which did not bear the name and address of the seller. The defendant, giving evidence, said he was sure a label was gummed on the bottle when it was sold to the inspector. His own name appeared on the facia of the shop. The magistrate fined the defendant 40s., with 21s. costs, upon each of the two summonses.

Food and Drugs (Adulteration) Act, 1928.—At Ealing Police Court, on June 13, F. W. Woolworth & Co., Victory House, Kingsway, W.C.2, were summoned at the instance of the Middlesex County Council for having supplied tincture of iodine not composed of ingredients in accordance with the demand of the purchaser, contrary to Section 3 of the Food and Drugs (Adulteration) Act, 1928. The defendants pleaded "Guilty" to a technical offence. There was another summons under Section 2 of the Act, but this was withdrawn by consent. Mr. R. A. Robinson prosecuted, and the defendants were represented by Mr. Gilbert Beyfus. The substance of the case for the County Council was that on April 20 an inspector entered Messrs. Woolworth's West Ealing stores. He saw on the counter a number of cartons labelled "tincture of iodine B.P. poison," and others labelled "iodine," with the word "solution" in small letters underneath; one bottle had been taken out of a carton, and this was labelled "tincture of iodine." The inspector asked the girl in charge of the counter: "Is this tincture of iodine?" and she said "Yes." He thereupon said he would have half a dozen bottles, and she served him with these, for which he paid three shillings. The bottles he received contained the iodine solution, which proved on analysis not to be in accordance with the British Pharmacopœia formula for tincture of iodine. Whereas this formula prescribed 2.5 per cent. of iodine, 2.5 per cent. of potassium iodide, a trace of distilled water, and rectified spirit to make up 100 parts, the solution contained 0.66 per cent. of free iodine, no potassium iodide, and isopropyl alcohol. Mr. Robinson pointed out that rectified spirit was dutiable, whereas isopropyl alcohol was not. Suggesting that the case was a serious one, Mr. Robinson said that British Pharmacopœia formulas ought to be regarded as sacred. He quoted the late Lord Phillimore as having said in a judgment that a vendor who kept two sorts of a drug might almost as well have kept two sets of weights and measures. Mr. Robinson called what was supplied a travesty of what was demanded. Mr. F. J. Dyer, B.Sc., A.I.C., Ph.C., formerly head of the Pharmaceutical Department at Bradford College, gave technical evidence for the prosecution. He said that the free iodine was the therapeutic agent in tincture of iodine, and the efficacy of the substance depended on the strength of this element. Cross-examined, witness admitted that in Martindale's "Extra Pharmacopœia" isopropyl alcohol was given as a satisfactory solvent of iodine. The case for the defence

was that Messrs. Woolworth sold tincture of iodine in accordance with the B.P. formula up to August last year. They were then informed by the Customs authorities that they could not continue to sell this without either an Excise or a chemist's licence, on account of the dutiable spirit it contained. The sale was thereupon discontinued. In September last an article appeared in "The Lancet," in which Dr. Macdonald and Mr. Peck recommended the use of isopropyl alcohol as an iodine solvent. The firm which had supplied Messrs. Woolworth with iodine had their attention called to this, and experiments were made on their behalf which resulted in the preparation of the iodine solution involved in the case. The Customs authorities said that Messrs. Woolworth might sell this, and they commenced to do so this year. Later, as a result of a complaint made by the Birmingham Public Health authorities, it was discovered that some of the iodine was absorbed, and further experiments led to the discovery that this might be prevented by the inclusion of potassium iodide. When the Customs authorities forbade Messrs. Woolworth to continue selling tincture of iodine, they authorised the firm to sell off its existing stock; this was how some cartons of tincture came to be on the counter at the time of the inspector's visit. In view of the fact that tincture was asked for, Mr. Beyfus said that his clients would plead "Guilty" to a technical offence, but it was a "trap order." Technical evidence was given for the defence by Dr. H. E. Cox, M.Sc., F.I.C., public analyst of Hampstead and Cornwall, and by Dr. P. W. Boobyer, Ealing. This latter said that for external use the iodine solution was excellently effective; he did not think anyone would use iodine internally, except under a doctor's instructions. Alternative iodine solvents were in general use in hospitals; methylated spirit was in use. In cross-examination about the strength of the iodine in the solution, witness said that anyone except a doctor who used iodine used about 500 times too much. The witness also said that the penetrative effect of isopropyl alcohol let in twice as much iodine as when rectified spirit was used. Mr. Robinson suggested that the matter was still a subject of experiment. Mr. Robinson asked leave to call the deputy county medical officer of health to rebut Dr. Boobyer's evidence as to the efficacy of the solution, although pointing out that the efficacy was immaterial to his case. The Bench intimated that this evidence was not necessary. After the magistrates had retired, the chairman said that they considered the prosecution had proved its case, but that they thought the offence was due to mismanagement and not intention. The defendants were fined 40s., and ordered to pay £10 10s. costs.

Wills

MR. ALEXANDER STEVENSON HENDERSON, of 7 Victoria Park, Kirkcudbright, chemist and druggist, who died on March 13, aged eighty-five, left personal estate in Great Britain valued at £11,542.

MR. THOMAS BRUCES GERARD, of 6 Magdale Road, Nottingham, late chairman and director of Gerard Bros., Ltd., soap manufacturers, Nottingham, who died on March 13 last, left £39,921 17s. 10d., with net personalty £37,155 15s. 8d.

MR. JOHN MACFARLAND HAMILL, Altamont, Banbury Avenue, Bangor, co. Down, solicitor to the Pharmaceutical Society of Northern Ireland, who died on January 11 last, left personal estate in Great Britain and Northern Ireland valued at £7,730 11s. 10d.

MR. THOMAS PORTER BLUNT, M.A., F.I.C., Ph.C., of 28 Tower Place, Shrewsbury, Salop, Public Analyst for Shropshire, Merionethshire, and Montgomeryshire, who died on February 8 last, aged eighty-six, left estate of the gross value of £6,623 11s. 4d., with net personalty £2,160 10s. 8d.

MR. DAVID DUNN WARREN, of Westbourne House, Kelvinside, Glasgow, late chairman and director of Hunter & Warren, Ltd., who died January 29 last, aged sixty-nine, left personal estate valued for probate at £324,522 3s. 1d.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office.

HARRY A. PENNEY CO., LTD. (P.C.).—Capital £16,000. Objects: To carry on the business of chemists, druggists, perfumers, drysalters, oil and colourmen, etc. R.O.: 179/185 Great Portland Street, London, W.1.

J. G. DAWSON, LTD. (P.C.).—Capital £2,500. Objects: To carry on the business of chemists, druggists, dispensers, drysalters, oil and colourmen, etc. The permanent directors are: J. G. Dawson and N. H. Walton. R.O.: 95 Laygate Circus, South Shields.

D. & L. DRUG STORES, LTD. (P.C.).—Capital £500. Objects: To carry on the business of manufacturers of and wholesale and retail dealers in patent and proprietary medicines. The subscribers are: S. Egelnick and Mrs. D. Egelnick. R.O.: 231 Brixton Road, S.W.9.

THE UNITED CASH CHEMISTS SYNDICATE, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of chemists, druggists, pharmacists, photographers, photographic dealers and oil and colourmen, also that of financiers, etc. R.O.: 9 and 10 Fenchurch Street, London, E.C.3.

BIRCH & CO. (CHEMISTS), LTD. (P.C.).—Capital £500. Objects: To acquire the business of retail chemists now carried on at Upper Norwood as Birch & Co. The directors are: L. E. Golds, H. Skilton and H. F. Moore. R.O.: 111 Church Road, Upper Norwood, London, S.E.19.

DAVIES, MASON & CO., LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of shipping, pharmaceutical, analytical, manufacturing and consulting chemists, druggists, chemists' and druggists' sundries-men, drysalters, oil refiners and colourmen, etc. The permanent directors are: E. B. Davies and R. Mason. Solicitors: Lambert & Lambert, Town Hall, Gateshead.

CARBOLEEN COMPANY, LTD. (P.C.).—Registered in Dublin on February 20. Capital £3,000. Objects: To carry on business as dealers in chemicals, tar, oils, disinfectants, greasers, cattle-dips, etc. The directors are E. J. Dicker, C. A. MacParland, and G. J. Burhenshaw. Sandymount House, Ballyjamesduff, co. Cavan. R.O.: 34 Lower Abbey Street, Dublin.

A. H. DEE, LTD. (P.C.).—Capital £2,000 in £1 shares. Objects: To acquire the business of a retail pharmacist now carried on by A. H. Dee, at 274 Earlsfield Road, Earlsfield, and at 27 Bendall Street, Edgware Road, N.W. The subscribers are:—A. H. Dee, 274 Earlsfield Road, S.W., chemist and druggist, and A. Anderson, 27 Bendall Street, N.W.1, chemist and druggist. R.O.: 274 Earlsfield Road, Earlsfield, London, S.W.18.

THE ALBION BOTTLE CO., LTD. (P.C.).—Capital £60,000. Objects: To acquire the benefit of and carry into effect a contract dated June 10, 1929, by E. F. Anger and J. C. Stainthorpe, as agents for the company, for the acquisition of certain freehold land, factory and premises at Rood End Lane, Oldbury, and to carry on business as manufacturers of glass bottles, jars, containers, etc. Solicitors: Pinsent & Co., Birmingham.

MCNEAL, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of manufacturing, wholesale and retail opticians, chemists and chemists' opticians, dealers in photographic goods, surgical instruments, optical appliances and jewellery, proprietors of newspapers, magazines, lecture books or other publications, teachers of optics, etc. The permanent directors are: J. F. McNeal (chairman and managing director) and G. S. I. Albu. R.O.: 120 Finchley Road, Hampstead, London, N.W.3.

PHOSFERINE (ASHTON & PARSONS), LTD.—The profit from trading for the period January 1, 1928, to April 30, 1929, was £84,904, which, after making provision for depreciation, bad debts, etc., leaves a net sum of £69,701. The sum of £12,000 is set aside towards the reduction of preliminary expenses, and £5,000 to a general reserve, leaving available for distribution £52,701. This gives the 8 per cent. cumulative participating ordinary shares a further 1 per cent., making 9 per cent. in all, while on

the deferred shares 8 per cent. is declared, leaving a sum of £9,668 to be carried forward.

VIROL, LTD.—The gross profit for the year to March 31 is £269,707 (against £275,329). The net profit, including balance brought in, is £124,096 (against £122,285). The ordinary dividend is again 22½ per cent., and £20,000 written off on Virol and Milk development account; carried forward £74,898, subject to directors' fees.

"SANITAS" CO., LTD.—The report for the year ended March 31, 1929, states that investments continue to yield a satisfactory return in aggregate, but the directors have applied £10,000 out of general reserve fund account in writing down the value at which investments in associated companies stand in the balance sheet. The balance at credit of profit and loss account, including £3,130 brought forward, amounts to £62,652. From this £7,326 has been paid as dividend on preference shares for the half-year ended September 30, 1928, and £13,750 as interim dividend on ordinary shares, leaving, after payment of final dividend of 4½ per cent. on preference shares and a final dividend of £31,250 on ordinary shares, a balance of £3,000 to carry forward.

Bankruptcy Reports

Re Stanley John Ruthven Cohen, sponge importer, 53-54 Houndsditch London, E.C. An application was recently made at the London Bankruptcy Court for an order of discharge on behalf of this bankrupt, who failed in September 1926. The Official Receiver reported that the provable debts amounted to £442: no assets were disclosed, but a sum of £94 had been received under an order of the Court for the bankrupt to hand over part of his income in satisfaction of the debts. For eighteen years prior to the failure the bankrupt had been in the employ of a sponge importing company, latterly as manager, traveller and director. Insolvency was attributed to costs of divorce proceedings against his wife and to having lived beyond his income. The discharge, subject to one month's suspension, was granted.

Re Albert John Joseph Baker, chemist, 77 Broadway, Leigh-on-Sea, Essex. The receiving order herein was made recently on the debtor's own petition. According to the statement of affairs there are liabilities amounting to £719 7s. 2d. against assets of £21, thus leaving a deficiency of £698 7s. 2d. Debtor attributes his failure to the judgment obtained against him by his late partner and law costs. In June 1913 the debtor and another commenced business in partnership as retail chemists at 77 Broadway, Leigh-on-Sea, under the style of A. J. Baker & Co. His partner provided the whole of the partnership capital of £250, which was expended in the purchase of the business. The profits were to be shared in the proportions two-fifths to his partner and three-fifths to himself. His partner, who later advanced additional moneys for partnership purposes, did not take any active part in the business, which was unsuccessful from 1924 owing to lack of capital and trade depression. As a result of differences the partnership was dissolved on May 26, 1927, and a receiver appointed of the partnership estate. The business was shortly afterwards closed, the assets realised and the trade creditors paid in full. Subsequently proceedings, which he defended, were brought against him by his former partner for the recovery of money which he had provided, and on January 16, 1929, judgment was obtained against him for £659 12s. 8d., and, being unable to comply with the order of the Court, he filed his petition. The public examination was held recently at the Petty Sessions House, Alexandra Street, Southend-on-Sea. The examination was adjourned for closing.

Gazette

Bankruptcy Acts

RECEIVING ORDER AND ADJUDICATION

COCHRANE, J. W., 100 Durham Road, Blackhill, and lately at Lanchester, Durham, druggist.

CHEMISTS' EXHIBITION

London, June 17-21

THE thirty-fifth exhibition organised by "The British and Colonial Pharmacist" was opened at the new hall of the Royal Horticultural Society on June 17 by Mr. Herbert Skinner, immediate past-president of the Pharmaceutical Society of Great Britain. In his opening remarks Mr. Skinner said it gave him pleasure to preside on a second occasion for the function of opening the exhibition. He hoped that business would be brisk during the week; he recognised that chemists were a hard-headed lot, and if the salesmen present could "put it across them" they would deserve success. He complimented them on the display made, and formally pronounced the exhibition open. Mr. H. Gilleghan, chairman of the Retail Pharmacists' Union Executive, made a few remarks on the projected Pharmacy Week in October. The idea was to make known to the public the important part pharmacy played in the national life, and for this typical windows had been prepared in an annex. Mr. W. J. Hardy, president of Pharmaceutical Society of Northern Ireland, moved a vote of thanks to Mr. Skinner, who, he said, deserved praise as much from Northern Ireland as from Great Britain; he (the speaker) was proud to be able to pay tribute to his service for pharmacy. Sir Leonard Rowland seconded in a few friendly words. Luncheon was afterwards served; most of the leading pharmacists in London were present, with Mr. Philip Want in the chair. Mr. G. A. Mallinson proposed "Success to the Exhibition," and gave further information on the subject of Pharmacy Week. Mr. Want replied in a few well-chosen words. Mr. L. Moreton Parry, president of the Pharmaceutical Society of Great Britain, proposed a toast to Mr. Skinner, his predecessor in office. He said he felt he knew Mr. Skinner as an officer of the Society better than anyone else, and he would like to tell them he could have been president for a third time had he so wished. Mr. Skinner, replying in an intimate vein, thanked his old friends for their loyal support in helping to make his presidency a success. Mr. J. Keall proposed the toast of "Overseas Visitors," coupling with it the name of Mr. Homer Fox, United States Commercial Attaché, who, in response, gave interesting figures of the relative value of pharmacy to sidelines in his town. The luncheon closed with a toast to the chairman.

Pharmacy Week Windows

The following are brief notes on the six specimen windows supplied by the Retail Pharmacists' Union in connection with the forthcoming Pharmacy Week:—

(1) *Dispensing Apparatus and Finished Products.*—In this window the "tools" of the dispenser are shown, together with a few finished articles ready for dispatch. A small card attached to each unit in the display states its name. This is a window any chemist can find the material for, and one well calculated to increase the dispensing side of his business.

(2) *Surgical and Sick-Room Requisites.*—To draw attention to the fact that a chemist stocks these goods this show is excellent.

(3) *We Draw on the World for Our Supplies.*—The suggestion here is good, and can be adopted by any pharmacist.

(4) *Agricultural and Horticultural Drugs.*—In a district where these goods are sold, the chemist with a large stock can make an excellent show.

(5) *The Medicine Cupboard.*—Here is a field that the pharmacist has rarely entered. Where he has tried window shows of this kind, they have had wonderful results, and have been remembered after many days.

(6) *Show of Drugs.*—Here an idea is thrown out that all who desire can use and develop.

Drugs, Chemicals and Proprieties

R. H. ALLEN & Co. have a large stand on which a wide selection of their specialities is arranged. The Ducilma series is prominent, and medicated foot socks.

ALLEN & HANBURY, LTD., make a feature of personal weighing machines and dispensing balances, particulars and illustrations of which will be sent on request to anyone interested. Chemists' sundries and the Torch brand series are prominent among other products.

AYRTON, SAUNDERS & Co., LTD., occupy a large stand with a comprehensive display of all kinds of goods sold in the pharmacy, from galenicals to sundries. A feature is made of Ayrtton's tasteless castor oil, which has been so treated as to leave it practically without odour and without taste, without detracting from its therapeutic value. Another prominent feature of the stall is a massed display of Hibiscus hair cream.

BAYER PRODUCTS, LTD., are exhibiting their numerous and well-known specialities. Prominence is given to protargol in a granular form, which is instantaneously soluble.

ROBERT BLACKIE makes a feature of spun ointment, skin foods, vanishing creams, and so forth. Other items in varied display are bath crystals in different packs, chemical foods, salines and iodine sticks.

THE BRITISH DRUG HOUSES, LTD., have met a demand among breeders of racehorses and owners of kennels in putting out a veterinary Radiomalt. For this purpose new packages of Radiostol and capsules of this preparation under the name of Vestules have also been added to the list. Leading positions on the stand are given to "æther puriss.," Radiostoleum, and a complete range of packed goods, the rest of the space being devoted to a selection of fine chemicals and other specialities.

ARTHUR H. COX & Co., LTD., give prominence at their



THREE OF SIX PHARMACY WEEK SPECIMEN WINDOWS.

stand to solid hydrogen peroxide and solid iodine, the convenience of which in the household is manifest. These principal lines of the occasion are flanked with pharmaceutical and toilet products which have established a reputation for themselves.

CUPAL, LTD., have several new lines, including a ginger wine essence, the Charm of Youth toilet series, Reg-o-lettes, and a new-sized package of the goods in the Red Ring series. Comfy Pads for corns, smokers' pastilles, and aspirin tablets are other recent additions to the list.

THE EMERSON DRUG CO. have an effective display of Emerson's Bromo-Seltzer, a proprietary which has a long standing reputation in this country, and is now being pushed by the Canadian proprietors. Particulars of advertising in this country may be obtained at the stand.

J. C. ENO, LTD., have, as usual, a striking display of Eno's Fruit Salt, the setting of which illustrates what can be done in the way of presenting a single article.

GENATOSAN, LTD., give prominence to the new product Genozo Tooth Paste, which is being well received. Genasprin, Nasmint, Sanatogen, and other proprietaries are also displayed.

C. R. HARKER, STAGG & MORGAN, LTD., are featuring their packed specialties, and attention is drawn to a novelty, namely, bath perfume capsules. These consist of ordinary gelatin capsules filled with selected perfumes.

THOMAS HARLEY illustrates the use which can be made of his showcards and leaflets for pushing Rodine. Almost one-third of the chemists in Britain are now buying on direct terms.

HOWARDS & SONS, LTD., have a comprehensive range of their familiar products, including ether, menthol, thymol, elegant counter packages of salts, hydrogen peroxide and Charcoids. Much space is devoted to Howards' aspirin tablets.

JOHNSON & SONS (MANUFACTURING CHEMISTS), LTD., have planned their stand to impress on the visitor that they handle pharmaceutical as well as photographic chemicals, in addition to their galenical preparations and packed own-name goods.

KAY BROTHERS, LTD., show a laxative syrup, Laxopru, as well as other lines including Kaybro Anti-Sting and papers smeared with Dak Ratlime. Messrs. Kay Brothers offer C. & D. subscribers a sample of Kaybro Anti-Sting free on application.

MEGGESON & CO., LTD., have an attractive stand, in charge of Mr. Agnew, comprising samples of many of their well-known lozenges and other products. Prominence is given to Vitamin Malted Chocolate and Vitamin Malted Toffee, two products for which it is claimed that they contain vitamins A, B, C and D.

MENLEY & JAMES, LTD., are showing a distinctive range of compressed tablets, as well as Iodex and Neuro Phosphates.

THE MOND STAFFORDSHIRE REFINING CO., LTD., have a well-placed stand at which their products are so attractively displayed as to suggest that they must look well on counters or in a window. Among these products are Monsol Throat Pastilles, Monsol Dental Cream, and Monsol Anti-Bite Sticks.

H. R. NAPP, LTD., have a well-arranged display of fine chemicals and pharmaceutical products. Among these are Normacol, Neo-Reargon, Napoleon Gout and Rheumatism powders, and several of the fine chemicals of the House of Merck, including glycerophosphates and ephedrine.

PARKE, DAVIS & CO. have designed a new display set for Euthymol Tooth Paste, and this striking idea fills the back of the stand. Nema worm capsules, new sizes in Dermalac, Tarfoam and bay rum are also featured. Metatone is now one of the firm's biggest sellers.

PASTILLES, LTD., give prominence to Lakerol brand pastilles, the time for which, in our climate, is never far distant. This popular proprietary is accompanied by smoker's pastilles and several other counter lines.

PLATMAR, LTD., have on view their popular range of West Australian essential oils. A new product, Katronal, consisting of beach wood tar oil is displayed on the same stand by the agents, Maxwell, Plaistowe & Co., Ltd. An agency has also been acquired for products from the Hudson's Bay Co., and the possibilities for future expansion in this field are wide. The Hudson's Bay Co. have adopted a scheme whereby the trappers will be kept in employment during the close season in the fur industry. This scheme includes the preparation of "abso-

lute" castoreum extract in laboratories at the source, and it is predicted that auctions of the raw material in London will soon be done away with. Production of cod-liver oil having a higher vitamin content than Norwegian is also planned on a commercial scale. Seal liver preparations are exhibited, and an item of interest is the thyroid glands from the same mammal. Senega root and cascara bark have been collected, and from the quality of the specimens on view this new source is likely to be welcomed in Mincing Lane.

POLAK & SCHWARTZ (ENGLAND), LTD., have a range of concentrated flower oils and various perfume novelties. Among the flavouring materials new lines, lemon and orange pastes were featured.

W. J. RENDELL, LTD., have an artistic corner stand at which their representatives explain their publicity arrangements to visitors.

STANIFORM, LTD., make a striking display in charge of Mr. S. Jamieson of proprietaries founded on Staniform, the therapeutic value of which has obtained wide recognition. Our representative learned that a publicity campaign is to commence in the near future. The uses of Staniform as an antiseptic and anti-infective generally are numerous; this fact, combined with its freedom from toxicity and other unpleasant qualities should commend it for domestic use.

THOMPSON & CAPPER (WHOLESALE), LTD., are making a good display of several of their proprietaries, including Quinphos, Cornol, yeast tablets, and Mothaks moth-killers. Special offers in connection with these proprietaries are being made during the week. Other goods on view include sixpenny boxes of peppermint lozenges.

YADIL PRODUCTS (1925), LTD., have a well arranged exhibit of Yadil and the other proprietaries derived from it, including an ointment, a soap, pastilles and pills.

Other exhibitors in this section include:— F. C. CALVERT & Co., LTD. (carbolic soaps, tooth powder, ointment and disinfectants); THE LYCO YEAST TABLET CO., LTD. (pure culture yeast tablets); W. T. OWBRIDGE, LTD. (lung tonic, pills and embrocation); THE THERMOGENE Co., LTD. (Thermogene); TIBO PRODUCTS Co., LTD. (Rinex asthma and catarrh specifics, Rex liquid insect killer, etc.); ZYMA CHEMICAL WORKS (SCOTT, BADER & Co., LTD., agents) (Pilka-Golaz, Hovaletten-Zyma, Furonciline-Zyma).

Toilet Preparations and Requisites

R. ADDIS & SON have a striking exhibit of tooth-brushes of the newer types in many colours. Our representative learned that the older type of tooth-brush with plain bone handle is holding its own, and, no doubt, there will always be customers in the pharmacy who view with disfavour the movement for brighter toilet preparations. However this may be, it is interesting to learn that the range of prices is from as low as 2s. 6d. a dozen.

ALLWOOD BROS. attract the eye from a distance with their handsome display of carnations, which, on this occasion, act as a pointer to the perfumes and toilet requisites to which they contribute. Chemists who make a hobby of gardening will probably be able to learn something from Messrs. Allwood's representative in charge of the stand.

J. & E. ATKINSON, LTD., have a new pack for their old-established White Rose perfume and soap. The latest perfume has been named Black Tulip, and this is available in a range of sizes at popular prices. A feature is made of a variety of new designs in gift sets.

AVA, LTD., have an artistic stall devoted to the Ava ultra-violet ray complexion soap which is being extensively advertised. The high percentage of perfume incorporated is a distinctive point of a line which is artistically packed in a red wrapper with gold lettering. The policy of this firm in confining sales to pharmacists is receiving approval.

T. F. BRISTOW & Co., LTD., have a large display of toilet products of many kinds. The general colour scheme of the exhibit is striking and instructive. Prominence is given to Bristow's Face Cream Soap, a new product derived from milk and olive oil as ingredients.

THE BUTYWAYE Co., at their stand, present the retailer with ideas in the form of two excellent window displays focusing attention on their shampoo and other products.

CUSSENS, SONS & Co., LTD., have a large and varied display of perfumery and toilet preparations. Prominent among these are the Mists of the Moon series, and White Cross Baby Powder and Soap. Bonus offers, particulars of which are obtainable at the stand during the exhibition, are sure to be attractive.

THE DEVILBISS Co., LTD., announce that their perfume sprays are now available at lower prices, although the quality is maintained. Showcards may be had on request.

GILMONT PRODUCTS, LTD., have an arresting display of New-Mix Tooth Paste. A special electric sign with moving slides for advertising demonstrations is fitted at the stall, together with other show material.

LES PARFUME GUELDY are to be seen on an attractive stand. A feature is made of the new Apricot powder in a unique invisible shade with the Mirage perfume to match.

PARFUMERIE NILDÉ OF PARIS make a composite show of their well-known beauty preparations and perfumes.

POTTER & MOORE, LTD., exhibit three main lines, comprising Old English Mitcham Lavender Water, the popular Oriental Poppy Buisson, and a new feature, Purple Lilac. Each series is complete.

PRICHARD & CONSTANCE (MANUFACTURING), LTD., show a complete range of Amami shampoos, together with vanishing cream, skin food and other toilet goods in the same series. The Elderflor specialities are also on view, and the new Amami almond oil manicure set.

PUNKT PRODUCTS DEPOT are featuring an addition, the Punkt Hair Toner, which is a novel combination of a head massage bottle with hair tonic. The tonic is applied direct to the scalp by means of this appliance. Punkt rollers and the Punkt friction spray are also on view.

EUGENE RIMMEL, LTD., emphasise that in addition to their high-class perfumes and soaps they are now offering many items to meet the more popular and inexpensive demand.

Among other exhibitors in this section are: BLAND PRODUCTS, LTD. (Bland's Solution, a "shave-time saver"); CRESSWELL BROTHERS BRANCH, INTERNATIONAL SPONGE IMPORTERS, LTD. (sponges, sponge-bags and loofahs); J. GROSSMITH & SON, LTD. (perfumery); KOLYNOS INC. (dental cream); ODCLON (1928), LTD. (perfumery, toilet preparations, manicure sets and sprays); PAPIER POUDRÉ, LTD. (Poppea series of cosmetics); ROBERTS & SHEPPEY (Mel Rose tablets and creams, Sheppey's chilblain tablets); SMITHS (HAMPTON), LTD. (pine tar soap, baby soap, etc.); W. H. THOMAS (Mouson's lilac series, comprising special perfume, bath salts, crèmes, etc.).

Miscellaneous

ARMSTRONG CORK Co., LTD., make a neat display of various grades of corks, several numbers of which have established considerable reputation. Messrs. Armstrong point out that they have been making corks for nearly seventy years.

BEATSON, CLARK & Co., LTD., have a comprehensive range of dispensing and other bottles, recess-labelled shop rounds and jars, measures, labels for shop drawers and other goods, the high quality of which is well maintained.

THE BRITISH AUTOMATIC VENDORS, LTD., exhibit comprises a range of automatic machines. Emphasis is laid on the points that these are English-made and cheaper than those of foreign make.

EDWARDS BROTHERS feature anti-midge pens and a pack of tincture of iodine, comprising a small vial with an up-to-date sprinkler top. A complete range of Edbro toilet brushes is also displayed.

FASSETT & JOHNSON, LTD., make a representative display of the proprietaries for which they are distributing agents.

THOMAS ILLINGWORTH & Co., LTD., have a striking display of their photographic goods, backed with delightful examples of printing and enlarging on Red Label Zona Paper. Mr. Fred Giles, the senior London representative, who is in charge, has some interesting things to say about the progress of "the Fast Film in the Bright Blue Box" and about the new rapid bromide paper used with projector printers. Another recent development is pancromatic film packs, indicating anticipation of the ever-growing wants of the amateur.

J. G. INGRAM & SON, LTD., have a well arranged display

of many kinds of rubber goods, most of which are to be found in the P.A.T.A. list. Copies of the well-printed "Rubber Notes," Messrs. Ingram's house-organ, are being distributed, and are sent to retail chemists on application. There is a special show of the new hygienic packing of Ingram's Agrippa teat in three shapes, fitted with reinforced green band, and put up in transparent containers.

INGRAM & ROYLE, LTD., have a well-placed stand at which they show, as usual, a large number of the mineral waters which they import. A demand may suddenly spring up for any of the less-known ones, and it is convenient to remember that practically all are obtainable of Messrs. Ingram & Royle.

THE INTERNATIONAL BOTTLE Co., LTD., make an artistic exhibit of many kinds of glassware. Their Paris house, C. Depinoix et Fils, sends high-class perfume bottles of original design, and the Hazel Atlas Glass Co. send opal ware from the United States. We learn that the Nympe pattern perfume spray has advantages over the ordinary variety and is rapidly gaining in popularity.

McCLURE, YOUNG & Co., LTD., are manufacturers of high-grade disinfectant and antiseptics. The Pistany Radium Bath Mud, which is attracting the interest of the medical profession is shown.

THE NATIONAL CASH REGISTER Co., LTD., have a business-like display selected from their hundreds of types, including some new models adapted for special purposes. From such a specialised grading it should not be difficult to choose a machine.

PEEK BROS. & WINCH, LTD., display and urge the merits of Matté Real, which may be commended to the notice of tea and coffee addicts as a harmless substitute, and to the public in general as something new for trial.

JOHN W. ROYLE, LTD., have an attractive exhibit of imported mineral waters and of wines. Messrs. Royle are not only importers of all the well-known natural mineral waters, but also have a considerable business in wines of established reputation. In the case of some of the mineral waters they hold the sole agency for Great Britain.

SHEFRAS NOVELTY Co. show various personal weighing machines, including one (in a limited number) at a special reduced price.

UNITED GLASS BOTTLE MANUFACTURERS, LTD., have a large display of many kinds of bottles and glass containers for dispensing and other purposes. During the past few months they have placed on the market a series of washed and sterilised dispensing flats, in two series, samples of which are on view.

VISCOSE DEVELOPMENT Co., LTD., are now able to print names on their Viskap bottle caps on orders for large quantities. A new opaque cap with brilliant finish is also available.

Other stands worth a visit include those of ALBION SEWING COTTON Co., LTD. (twines, tapes and cords); ANGLO-AMERICAN OPTICAL Co. (ENGLAND), LTD. (spectacle frames, trial cases, sun glasses, etc.); THE APOLLINARIS Co., LTD. (aerated and other waters); AUTOWAY Co. (personal weighing machines); AUTO-DORE, LTD. (automatic vending machines); BRITISH TINTEX AND DYE PRODUCTS, LTD. (dyes, colour removers, etc.); THE ECONASIGN Co. (apparatus for producing showcards); THE HOBART MANUFACTURING Co., LTD. (electrical mixing machines); HUSSEY, DAWSON & Co. (aluminium containers, bottle caps, measures, powder boxes, etc.); JEYES' SANITARY COMPOUNDS Co., LTD. (disinfectant); K. F. M. ENGINEERING Co., LTD. (electric signs and indicators); THOMAS KEATING, LTD. (insect powder); KOMPOSILL UNIVERSAL, LTD. (Komposill for cleaning and polishing); JULES LANG & SON (perfume bottles, puff boxes and other glassware); LINK APPLIANCES, LTD. (embossing machines for showcards and price tickets); NORTH AMERICAN DYE CORPORATION (Nadco dyes); PENNEY & Co., LTD. (British and foreign proprietaries); THE PEPSODENT Co. (tooth-paste); RADPACK, LTD. (R.P.C. hotwater bottles and Radpack heating cushion); THE REMINGTON CASH REGISTER SALES Co., LTD. (cash registers); RETAIL PHARMACISTS' SUPPLY ASSOCIATION, LTD. (medicinal and toilet preparations); THE SCHOLL MANUFACTURING Co., LTD. (foot comfort appliances and remedies); THERMOS (1925), LTD. (vacuum flasks, jugs and jars); JAMES TOWNSEND & SONS (printing); UNITED PHOTOGRAPHERS, LTD.; G. H. ZEAL, LTD. (clinical and household thermometers).

The Glyn-Jones Memorial

By Herbert Skinner

A FINAL APPEAL has been made to all parties by the respective presidents for the benefit of this fund. It is desirable that it should be closed down so that we can get to work on our objective. As I was the chairman of the original appeal fund, the president and council of the Pharmaceutical Society have asked me to complete the settlement as soon as possible.

In your issue of June 1, Mr. Hugo Wolff stated the business man's point of view about this fund. His appeal was made in full knowledge of all the circumstances surrounding the inception and the objects, and why it should be a pleasure and point of honour among pharmacists to add their quota to make the memorial worthy of a great man's memory as a tribute for what he had done for pharmacy. The objects of the memorial are such as would have appealed to him with an intensity equalled only by his love for pharmacy, which should be a satisfactory reason. Like Mr. Wolff, I remember the days when to sell proprietaries was as profitable as selling a postage stamp after hours. I worked hard with Glyn-Jones over the inception of the Insurance Act, and know fully his devotion to the principle which resulted in separating dispensing from prescribing. Many who knew him during those nerve-racking days have passed away, but every pharmacist in business to-day is reaping the reward of those self-denying labours. It is a small thing we ask to pay some tribute to perpetuate his memory. To me it is sad to see the names of several friends still absent from the contribution list. As chairman of the fund, my committee sought for the sum of £10,000 to make effective the objects we had in mind: we are now hoping to reach half that amount, and I appeal to our people to make that good. The time has arrived to close down, and on this account, not as chairman, I repeat my appeal to those who have not yet subscribed not to let me down. This is personal on my part; for twenty years I worked with Glyn-Jones as a colleague or protagonist, and we remained comrades, friends and workers for pharmacy to the end. It was colleague Marns and myself who received in Montreal his last gesture of goodwill and thought for British pharmacy. It is my honour and desire fittingly to complete the memorial to a man whose memory all we pharmacists should delight to honour. This I ask for remembrance, you, who have not yet given—will you help me to make it up to five thousand? Send to:—The Secretary, Glyn-Jones Memorial Fund, 17 Bloomsbury Square, London, W.C.1.

Trade Notes

BLADES for safety razors are advertised in this issue by Joseph Rodgers & Sons, Ltd., 6 Norfolk Street, Sheffield.

STAFF OUTING.—James Burrough, Ltd., Cale Distillery, Lambeth, London, S.E.1, state that their premises will be closed for their annual staff outing on June 29.

CLOSED FOR STOCKTAKING.—Francis Newbery & Sons, Ltd., druggists' sundriesmen, Charterhouse Square, London, E.C.1, inform us that their offices and warehouses will be closed for stocktaking on June 27 and 28.

PRICE CORRECTION.—Armour & Co., Ltd., St. Martin's-le-Grand, London, E.C.1, ask us to call the attention of subscribers to the fact that owing to a clerical error the prices of their junket tablets and powder advertised in last week's *C. & D.* were reversed.

DIGIPAN.—Coates & Cooper, 41 Great Tower Street, London, E.C.3, are the sole agents in this country and the colonies for Digipan, a product of the Temmler Chemical Works, Berlin, which contains all the digitalis glucosides physiologically standardised.

BURROUGHS WELLCOME & Co., Snow Hill Buildings, London, E.C., have recently issued Tabloid Hypodermic Bulbocapnine Phosphate 0.1 gm. Bulbocapnine Phosphate is administered hypodermically or orally in the treatment of chronic epidemic encephalitis in children.

TYPEWRITERS.—Mead, Ltd., 37 Oxford Street, London, W.1, and 9 Martineau Street, Birmingham, offer to send

a portable typewriter for a free trial to anyone interested. A booklet dealing with the machines, which may be purchased for cash or on the deferred payment system, will be sent to anyone who writes for a copy.

NEW PRICE LIST.—May & Baker, Ltd., manufacturing chemists, Battersea, London, S.W.11, have issued a new edition of their general catalogue. This comprehensive publication (pp. 278, 11 in. by 8½ in.) shows what an extensive range of chemicals and pharmaceutical specialities the company manufactures. The list also contains a lot of useful information, e.g., English prices and equivalents per kilo; thermometric equivalents, synonyms and trade names.

MYOSOTIS SPECIAL DISPLAY.—Myosotis, Ltd., 7 Hanover Square, London, W.1, are holding an exhibition of their beauty preparations (June 17 to 21 inclusive). The front showroom is arrayed with the Myosotis specialities, and it is impressed on visitors that the series has gained recommendations from the medical profession on account of the standard of purity. The latest creation, Souriya, which was designed for the ex-queen of Afghanistan, is a perfume possessing a truly Eastern aroma. The black bottles, with golden labels enriched with red, and a fancy box in leather finish make an attractive pack. Val Fleuri is also given prominence. In a separate apartment advance designs of powder puffs and novelties are grouped, and some unique pearl perfume dippers are also on view.

Trade Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1929, p. 333.

(From "The Trade Marks Journal," May 29, 1929.)

- "**PORDINO**" ; for mineral waters, etc. (44). By W. Leitch & Co., Ltd., 11 Greenside Lane, Edinburgh. 498,578.
- "**PALMOLIVE**" ; for toilet talcum powder (48). By Colgate-Palmolive-Peet Co., Ltd., 64 Natalie Street, Toronto, Canada, and The Palmolive Co. (of England), Ltd., 21 Eagle Street, High Holborn, London, W.C.1. 498,826. (Associated.)
- "**ALBATRICE**" ; for tooth paste and mouth wash (48). By R. Lamb, 51A Rodney Street, Liverpool. 499,463.
- "**AU REVOIR**" with picture of lady in crinoline; for perfumery, etc. (48). By J. & E. Atkinson, Ltd., 24 Old Bond Street, London, W.1. 500,382. (Associated.)
- "**GLISPA**" ; for a preparation for preventing condensation of moisture (50). By Godwin Bros., 123 Cannon Street, London, E.C.4. 499,918.

(From "The Trade Marks Journal," June 5, 1929.)

- "**SEMPER SURSUM**" on coat of arms device; for chemicals (1). By H. O. Traun, 59 Meyerstrasse, Hamburg 8, Germany. 490,759. (Associated.)
- "**HUBBOCK LONDON**" with device of Chinese characters and facsimile signature; for chemicals (1). By T. Hubbock & Son, Ltd., 24 Lime Street, London, E.C.3. 497,413. (Associated.)
- "**GOLDEN GALLEON NUVASTANE**" with device of ship; for chemicals (1). By Johnstons, Ltd., 5 Old Church Street, Leith, Edinburgh. 500,649. (Associated.)
- "**PHOSKRESOL**" ; for chemicals (1). By I.G. Farbenindustrie A.G., 23 Mainzer Landstrasse, Frankfurt-on-the-Main, Germany. 501,488.
- "**PILOLAC**" ; for all goods (1). By R. S. Clare & Co., Ltd., 8-15, Stanhope Street, Liverpool. 501,518. (Associated.)
- "**K E K**" ; for photographic chemicals and films (1). By F. W. Hampshire & Co. (1927), Ltd., Sunnysdale Works, Sinfen Lane, Derby. 501,937.
- "**REPROTONE**" ; for photographic chemicals, plates and films (1). "VELOX" ; for goods (8). By Kodak, Ltd., Kingsway, London, W.C.2. 502,054; 499,343. (Associated.)
- "**SOLEIL D'OR**" ; for medicinal chemicals (3) and for perfumery, etc. (48). By Lady Zoe Caillard, The Belfry, West Halkin Street, London, S.W.1. 497,898/899. (Associated.)
- "**BLUTAN**" ; for a medicated preparation (3). By Chemische Fabrik Helfenberg A.G. vormals E. Dieterich, 13 Karl Dieterichstrasse, Helfenberg, near Dresden, Germany. 498,777.
- "**PERIMCO**" ; for chemicals (1). By The Cyona Co., Ltd., Aston, Wallingford, Berkshire. 502,129. (Associated.)

Personalities

MR. ALEC MCLEOD, chemist and druggist, has been re-elected chairman of the London Labour Party Sports Association.

COUNCILLOR FRED W. BIGGS, chemist and druggist, Stourbridge, has been re-elected chairman of the North Worcestershire Assessment Committee. This is the third time Mr. Biggs has held this office.

DR. T. FRANKLIN SIBLY, Principal of the University of London, has accepted an invitation to become Vice-Chancellor of the University of Reading in succession to Dr. W. M. Childs, who is retiring.

MR. S. L. GOOCH, chemist and druggist, Holt, Norfolk, was recently made a public presentation in recognition of his service as chairman of the Parish Council for many years. Mr. Gooch had been a member of the council for twenty-five years.

We have had a call lately from Mr. Norman Chevers (Rogers, Chevers & Co. (Pty.), Ltd.), of Johannesburg, who is in this country on business. Mr. Chevers is anxious to get in touch with anyone interested in South African trade, and may be addressed *c/o* THE CHEMIST AND DRUGGIST.

MR. HAROLD DAVIS, Ph.C., chief pharmacist to University College Hospital, London, informs us that our ascription of the B.Sc. degree in connection with his name in our issue of June 15 is premature. We have no doubt that the degree will follow in due course.

THE following is the *personnel* of the Pharmacopœia Committee of the General Medical Council as newly constituted:—Sir Donald MacAlister (chairman), Mr. Bone, Sir Farquhar Buzzard, Dr. Dale, Mr. Edington, Dr. Kidd, Mr. Leathes, Dr. Mackintosh, Dr. Magennis, Sir John Moore, Sir Humphry Rolleston, Sir Norman Walker and Sir Holburt Waring.

Births

Notices for insertion in this column must be properly authenticated.

NICOLL.—At 71 Dunbar Road, Wood Green, London, N.22, on June 19, the wife of T. C. Nicoll, chemist and druggist, of a son.

STANYON.—On June 11, Olive (*née* Wing), wife of C. Robert Stanyon, chemist and druggist, Oakhill Pharmacy, Beckenham, Kent, of a daughter.

Marriages

PLATTIN—BUTLER.—At the Cathedral, Chelmsford, on June 15, Horace Henry Platin, M.P.S., to Gladys, second daughter of Mr. R. Butler, "White House," Baddow Road.

WHITE—GAMBLE.—At St. Patrick's Church, Coleraine, on June 4, Joseph H. White, M.P.S.N.I., to Kathleen Marguerite Gamble.

Silver Wedding

MITCHELL—DOBSON.—At 21 Mayfield Road, Edinburgh, on June 14, 1904, James Blackwood Mitchell, chemist and druggist, to Polly Dobson.

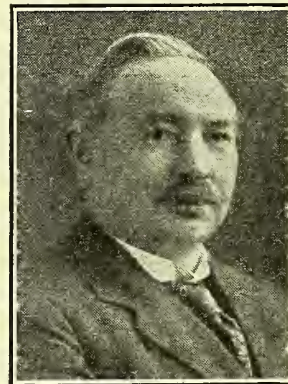
Deaths

JACKSON.—At his residence, 20 Grove Road, Millhouses, Sheffield, on June 14, Mr. Joseph Gilbert Jackson, chemist and druggist, founder of J. Gilbert Jackson, Ltd., 338 and 340 Abbeydale Road, aged sixty. Mr. Jackson served his apprenticeship to the late Mr. C. A. George, Fargate, Sheffield, and was subsequently with Mr. J. Woodcock and the late Dr. Symes, Liverpool. He commenced business on his own account in 1897, and with photographic goods as a side-line soon built up an extensive connection. Mr. Jackson took an active part

in pharmaceutical affairs, having been president and secretary of the Sheffield Pharmaceutical and Chemical Society, chairman of the local branches of the Pharmaceutical Society and the Retail Pharmacists' Union, a member of the R.P.U. Executive, and chairman of the Sheffield Pharmaceutical Committee. He was one of the founders of the United Chemists' Association, Ltd., which started in Sheffield. Mr. Jackson leaves a widow and a son. There was a large gathering at the funeral, which took place at Ecclesall after a service at St. Oswald's Church. Among those present, in addition to the family mourners, were the Lord Mayor of Sheffield; Messrs. A. Preston, L. T. Rhodes, A. Dixon, F. Jackson and W. Smith, representing J. Gilbert Jackson, Ltd.; Mr. H. Antcliffe, representing the Pharmaceutical Society of Great Britain; Mr. H. H. Marshall, representing the Retail Pharmacists' Union; Messrs. E. Preston, G. I. Forrest, T. Daykin, H. J. Williams, F. Hindle, J. E. Crowe, M. J. Sewell, F. Medley, A. Knowles, John Austen, S. Furnival, R. Dixon, C. A. Gardner and C. W. Hobson, representing the Sheffield Pharmaceutical and Chemical Society; Messrs. H. Miller, C. H. Griffiths, J. Hearle, A. E. Young, A. E. Belshaw, G. W. Evans, P. J. Radford and B. R. Richards, representing the United Chemists' Association, Ltd.

JENNINGS.—At Lincoln Cottage, Rosebery Road, Felixstowe, on June 13, Mr. John Atkinson Jennings, Ph.C., aged sixty-three. Mr. Jennings was for many years pharmacist at St. Thomas's Hospital, London, S.E.1, in succession to the late Mr. Edmund White.

MOFFETT.—In a Belfast nursing home, on June 18, Mr. Joseph Moffett, Ph.C., 225 Donegall Road. On May 29 Mr. Moffett was the guest of the Chemists' and Druggists' Society of Ireland at a social function in Belfast, at which he was presented with an illuminated address and a gift of silver, in recognition of his services as secretary of the Society. Mr. Moffett was a native of Aghagallon, and was registered as a druggist in 1900. Shortly afterwards he set up for himself in Donegall Road, where he built up a large business. He qualified as a pharmaceutical chemist under the Northern Society's Pharmacy and Poisons Act, and he was also an optician and dentist. Mr. Moffett devoted a great deal of time to pharmaceutical affairs; in addition to filling the post of secretary to the Chemists' and Druggists' Society, he was an ex-president of the Ulster Retail Drug Trade Association and one of the first members of the Council of the Pharmaceutical Society of Northern Ireland, from which he retired last year. He was a Past Master of Galen Masonic Lodge. Mr. Moffett was one of the most popular men in the trade, his genial nature making him friends wherever he went, and the news of his death was received with great sorrow. He is survived by a widow and three daughters, two of whom assisted him in his business.



MR. J. MOFFETT, PH.C.

Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

G/146. Creosoto	F/196. McKenzie's kidney pills
N/196. Eranol or Eronol	M/196. Pinofluinol (London source)
C/186. Euphyllin suppositories (London source)	B/186. Protectol (for sunburn)
S/106. Harrison's kidney and bladder pills	E/196. Roselin Cologne
W/116. Lighthouse brand absorbent cotton-wool	C/186. Thyropurin tablets
	E/196. Uriseptin pills
	B/186. Woodland Balm
	G/196. Zonotax

Observations and Reflections

By Xrayser III

Dublin Chemists

will next week be busily engaged in entertaining the British Pharmaceutical Conference, and those who have recollections of their hospitable treatment when previously visiting the Irish capital on a similar occasion cannot have the least doubt about the success that will attend this year's gathering. A comparison of your two pictures of the local committees in charge of the reception arrangements twenty-eight years ago and to-day (*C. & D.*, June 15, p. 713) reveals inevitable changes in *personnel*, but I feel confident that those of us who attend this year's meeting will find no diminution in the fervid spirit of hospitality which invariably characterises our Irish *confrères* on occasions of this kind. It is to be remembered that pharmacists from this side of St. George's Channel will find their hosts at a point where they will welcome all our sympathy and good wishes, because they are anticipating early legislation to deal with their professional and business arrangements, and are naturally anxious that the affairs of Irish pharmacy shall not be recast in an unsatisfactory mould. What happens to them, too, may not improbably be reflected in our own experience if and when the British Pharmacy Acts are cast into the melting pot.

In the United States

some of the wholesalers appear to be feeling the draught caused by the increasing growth of multiple-shop concerns, and this is not surprising when consideration is given to the fact that the big company groups tend inevitably to become their own wholesalers and, as far as practicable, manufacturers of their own supplies. Looking through the advertisement pages of an American drug organ I became interested in the announcement of one old-established and important manufacturing company, which is developing a plan of operation for what it terms the "independent druggists" of the United States. This plan, particulars of which were to be disclosed later, is designed to bring back to independent druggists renewed confidence in themselves and their stores or pharmacies; it is to put the independent druggist in a position to stand up and fight and to do this without relinquishing an iota of his independence. The plan, it is stated, will enable independent druggists to make more money than at present, give them a better chance of meeting multiple-shop and department-store competition, furnish them with an unequalled window-display service, and provide them with exceptional publicity through the medium of newspaper advertisements and wireless broadcasting. What strikes me most about this announcement is that the independent druggists are to be helped in this way, not by an organisation of their own, but by a particular manufacturing company.

The Inference I Draw

is that the company in question finds it necessary to offer what it does with the object of enabling it to compete more satisfactorily with the capitalistic concerns which are stealing away the business not only of the independent retailers, but also of the manufacturers and wholesalers who supply them. Something of the same kind is being attempted here by the R.P.U., which ought to have the good wishes and support of every independent chemist and druggist in this country in its campaign on their behalf. But success is not likely to be attained unless a much greater number of the independent retailers realise how their independence is being steadily sapped, and until they join in a concerted effort to maintain British pharmacy as a calling which is essentially one that should not be exploited by capitalists. It is not really to the public interest that such exploitation should be encouraged, but I fail to see how the prevailing tendency to replacement of independent chemists by company shops can be checked unless we combine to check it.

The Records

of the colonial enterprises of this nation in Elizabethan days are full of interest to, and provocative of pride in, all who love their country. They also contain treasures of knowledge hidden in unlikely places and unsuspected by the historian who is intent upon accumulating spectacular achievements redounding to the fame and honour of the more famous of the adventurers. An example of the activities of some of the less known men who actually bore great responsibilities in those important projects is the case of Sir William Vaughan and his settlement of Cambriol on the south coast of Newfoundland. This undertaking and the difficulties which beset it are matters of general history; but it is not so well known that Vaughan, who was a man of letters, wrote at least two works having a direct relation to his colonising scheme. One of these is the "Golden Fleece . . . transported from Cambriol Colchis," and the other is a little book of which a copy is now in my hands. This is of more than ordinary interest because its aim was not confined to instructing the new colonists; its intention was much wider. He entitled it:—"Directions for Health, both Natural and Artificial: Approved and derived from the best Physitians, as well modern as auncient." The first edition appeared in 1600 and met with a ready sale; there was a fifth edition in 1617, and a seventh in 1633, which seems to be the last recorded at the British Museum. Sir William Vaughan was of aristocratic lineage, being descended from an ancient prince of Powys; his brother was the first Earl of Carbery. It could therefore scarcely be considered presumptuous in him to dedicate his little volume "To the Right Noble Sr Francis Bacon, Knight, Loord Keeper of the great Seale of England, and one of his Majesties most Honorable Privy Councell; Health and Happiness, externall, internall, eternall." This appears in the fifth edition.

Vaughan's Little Treatise

is in the form of a catechism divided into six sections. The first question sets out the scope and purpose of the whole; it runs thus:—"Because some Noble and neare friends of ours doe live in Ireland; and for that some others of our nearest acquaintance do intend a Plantation in the Southerne part of Newfoundland: I pray shew me some Directions Natural and Artificiall, for the preservation of health in such remote places where honest Physitians are scarce." He asks many curious questions and gives many curious answers. "Why," he says, "did men live longer before the flood than they do now?" Among other reasons he states that one is "they knew the hidden vertues of hearbs and stones, using great continence in their dyets and behaviours. They were ignorant of our delicate inventions and multiplied compounds. They knew not our dainty cates, our marchpanes nor our superfluous slobber sauces. They were no quaffers of wine or Ale, nor were they troubled with so many cares, nor with passions of Envy and Malice." Our author had a great antipathy to tobacco. Those of your readers who are interested in the bibliography of tobacco should make themselves acquainted with his opinion of this article and the evils resulting from its excessive use. He did not altogether condemn this "Indian Medicament," as appears from his fifteenth rule of "Daily Dyet" which reads: "In the morning remember your affaires, and if you be troubled with rheumes, as soon as you have risen, use Diatrion Piperion, or a pipe full of pure Tobacco, if the weather be moist, so that you drinke not in two houres after, keeping your selfe retired and warme, untill the provoked and troubled humours be thoroughly settled." The days of the seventeenth century, although less spacious than those of the antediluvian epoch, were distinctly more so than those of this present time.

The Ministry of Labour is publishing, through the Stationery Office, a series of pamphlets on the choice of a career. The first of the series deals with Chemistry and Physics, somewhat on the lines followed in the annual Education Number of *THE CHEMIST AND DRUGGIST*.

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Editorial Articles

The Lawyer and the Pharmacist

WE observe, not without interest, a growing disposition in the legal world to take note of and comment upon passing events in the world of pharmacy. The explanation of this development of interest in the affairs of those who minister to the medicinal requirements of the multitude arises primarily, of course, in reference to proceedings in the courts; but it is not without significance that these references to our craft and its welfare should be of a distinctly sympathetic character. At least two prominent legal journals—the "Justice of the Peace" and the "Solicitors' Journal"—have lately had something to say to their readers about the law relating to the practice and profession of pharmacy. Under the title of "Not Pride of Possession," the "Solicitors' Journal" draws attention to a case heard at Bow County Court on May 29, when the Pharmaceutical Society successfully instituted proceedings under Section 3 (1) of the Poisons and Pharmacy Act, 1908, against a Walthamstow chemist who had failed to comply with the requirement of that subsection in not submitting conspicuously on his premises his certificate of qualification. Our contemporary thinks—no doubt correctly so far as the legal profession is concerned—that this requirement of the statute is not generally known, and comments upon the wonderment which the learned county court judge expressed as having himself often felt that chemists always seem to exhibit the Society's certificate of qualification. "In confessing that," says the "Solicitors' Journal," "his Honour was no doubt giving expression to what must have frequently exercised the minds of many people who, like him, have probably thought that it was a matter of pride. To penalise a man for not broadcasting his qualifications may at first sight seem somewhat harsh, but it becomes perfectly justifiable on the grounds of public policy by ensuring the services of a properly qualified man." Probably that is a correct view and one which may very well be commended to the consideration of the pharmaceutical "powers that be." The "Justice of the Peace," in its issue of June 8, has an outspoken article on the manner in which chemists are treated by the authorities responsible for administering the Sale of Food and Drugs Acts. After referring to an article published by "The Pharmaceutical Journal" complaining of the "purgatory" to which pharmacists are subjected in the way of oppressive legislation, our contemporary goes on to deliver itself thus favourably about the profession of pharmacy:—

"The outlook in the world of pharmacy has changed very much since Mr. Justice Starecigh refused to exempt the chemist from service on the jury in *Bardell v. Pickwick*, even at the risk of some inoffensive citizen being poisoned by oxalic acid given in lieu of Epsom salt, or laudanum in mistake for syrup of aenna, by the errand boy left in charge of that unhappy jurymen's dispensing department. The chemist to-day has become a pharmacist. Pharmacy—said to be the handmaiden of medicine—is now a profession in the strictest sense of the term. The course of study and the

examinations to be passed before a man may practise therein (and handle poisonous substances) is to-day notoriously more exacting than was required for qualification and practice as a full-blown medical practitioner before the passing of the Pharmacy Act of 1852. In these circumstances the complaint that members of the profession have to endure 'purgatory' is one that can hardly be disregarded."

Our contemporary then goes on to refer to the orange quinine wine cases which we have recently commented, and describes them and other similar cases reported as pointing in the direction of interference by the raising of technical quibbles which "seem to involve nothing of the slightest importance to the health and well-being of the community, but must obviously be a source of exasperation and expense to members of the Pharmaceutical Society who are marked out for prosecution." In the view of the writer of the article, if legislation, be it directly by Act of Parliament or indirectly by statutory rules and regulations, is to be of real benefit to the community, it should have regard to substantial principles and should be so framed as to operate without oppressiveness upon any section of the community. In his view the ultimate result of using the machinery of the Adulterations Acts in this manner will be to create an irresistible demand for drastic repeal or for the substitution of some other means than public prosecution for dealing with technicalities raised by those concerned in administering the Acts.

"In this regard," the writer continues, "attention may well be called to the subject of standardisation as dealt with in the Fertilisers and Feeding Stuffs Act, 1926 (16 and 17 Geo. V., c. 45). This statute is what may be termed the agricultural counterpart of the Sale of Food and Drugs Acts. It applies in this way. The seller is required to give to the purchaser of any article coming within the scope of the Act a written statement as to quality which has effect as a warranty. Then he is also required when he exposes goods for sale, or delivers them to the purchaser, to apply a description to them. The Fourth Schedule to the Act gives *in extenso* a definition of and standard for all the principal articles of commerce used as fertilisers and feeding-stuffs for cattle and poultry. The 'written statement' may be merely a label giving the name and (in certain cases) analytical percentages. The point is, however (without going into details), that an article must be properly named and described, and any deviation from the official standard must be disclosed. Surely in the same direction lies the true method of administering the law relating to the sale of medicaments? The British Pharmacopœia is recognised by the courts generally as a standard of quality and composition. If an article named therein is sold, it should be required to be labelled with the Pharmacopœia name and with particulars of any variation from the standard. There would then be an implied warranty which would afford all reasonable protection to the purchaser, and do away with any necessity that may exist for proceedings such as those complained of in the orange quinine wine cases."

We have ourselves on numerous occasions urged the importance of reasonable standardisation on B.P. lines as one of the means of doing away with the absurd prosecutions that are undertaken for no other purpose than to lure magistrates into setting up standards which in process of time may come to be legally recognised. That aspect affects many more retailers than are to be found in the pharmaceutical ranks; but beyond that it is of particular concern to them that this should be done—and more besides—in order to stop the degrading methods of prosecution that they so often have to endure. It is for that reason that we welcome the outspoken comments of our learned legal contemporaries.

The Mercury Market

STEREOTYPED conditions have again characterised the market for this commodity within recent months, but it is rather dangerous to hazard the opinion that this can continue for an indefinite period. The attitude of the larger

European and American importers, who may refrain from negotiating with the Italo-Spanish combine for new contracts is a governing factor as well as the ability of the combine to wait until buyers re-enter the market for first-hand supplies. In the event of reserve stocks at consuming centres becoming sufficiently exhausted a firming in values is probable. It looks almost as though a sharp fight between the two sides will become inevitable in the near future, as has happened before, although it is generally assumed that attempts that might be made by a combination of big merchant interests to bring about a cut in the combine's f.o.b. price (which has been steadfastly adhered to since its creation at £21 15s. per bottle) will meet with considerable resistance. Moreover, it is understood that mining operations have been regulated in order to avoid over-production in accordance with the arrangements which are understood to have been arrived at when the dual control was established last autumn. At the same time, there is a possibility that world's requirements have been over-estimated by the combine at the continued high price exacted, while the proportion of the American and Mexican output compared with the total world's production has been growing quietly. In the circumstances the filling of trans-Atlantic needs is not now so heavily dependent on Italian and Spanish resources. These various points certainly tend to create some uncertainty as to the future course of the market, although the fact remains that the combined Italo-Spanish output still represents not much under ninety per cent. of the total world's production. Commenting on the outlook for the metal under date of April 6, we stated that the depletion of stocks on this side, which we placed at about 4,000 bottles from the close of last year, was certainly not favouring easier conditions, but did not necessarily mean that the spot price would advance. In fact, we suggested a stationary market, and this has actually been the case, with quotations maintained throughout on the basis of £22 2s. 6d. to £22 5s. per bottle on the spot, less the customary discount. This has evidently been considered by importers as an irreducible minimum against the retention of an f.o.b. quotation for fresh shipments at £21 15s. It is interesting to note that, as already mentioned in our last week's Trade Report, the Italian output for the past year amounted, as provisionally estimated, to 52,602 bottles, which, compared with the previous year at 58,761 bottles, indicates a set-back of well over 6,000 bottles. This would, therefore, tend to confirm that the restriction of operations, under the working agreement with Spain, has been in force since the end of September in last year. Assuming that the Spanish output for 1928 was about 60,000 bottles, this would give an aggregate for the two countries of over 112,000 bottles, which would still be well in excess of the estimated world's consumption of 100,000 bottles. Even assuming that the accumulation of stocks at the mines since the close of the past year has been at a lesser rate under the alleged restriction, there is no doubt that heavy stocks exist, although by the end of this month the Spanish mines will be closing down for the season, and will not resume operations before the late autumn. This, however, is hardly likely to stimulate the demand should the necessity arise for securing a large outlet for part of the surplus, because price is the governing factor. Official U.K. returns to the end of May, with comparisons, are as follows:—

Bottles	1927	1928	1929
U.K. imports, May ..	4,173	1,016	161
U.K. imports, Jan.-May ..	10,627	7,639	1,099
U.K. re-exports, May ..	52	194	261
U.K. re-exports, Jan.-May	336	1,830	2,498
U.K. net imports, Jan.-May	10,291	5,809	*1,399

* Net re-exports.

These figures are striking, seeing that during the past five months this country has re-exported 1,399 bottles. Allowing for normal home needs, reserve stocks should have been reduced by over 6,000 bottles. Reserve stocks are, however, said to be by no means near exhaustion, and are estimated at between 3,000 and 4,000 bottles. This is largely guesswork, but the fact remains that the spot market is still able to rub along without further notable imports.

Chemists' Exhibition

At the Chemists' Exhibition which opened in London on June 17 we found many things, from the Egyptian god "Set" to something ultra-modern like the "Robot" pharmacist, which will supply goods at any hour during the night or on Sunday. As the years pass the aim of pharmacy and applied chemistry, as shown by exhibitions, would seem to be mainly on the lines of toilet aids and accessories. However, by visiting exhibitions a chemist may remain *au fait* with what is new in pharmacy and chemistry. Here, under one roof, with the minimum of exertion, a chemist and his staff can see much of what the trade provides. In addition, he can learn the methods best suited to his own type of shop for displaying goods to advantage. Here is to be found salesmanship in tablet form. The most novel feature of this exhibition is the room devoted to the preparatory stage of Pharmacy Week, giving ideas for window displays which any pharmacist without anything but the stock in an average shop can use. The whole idea is to educate our fellow countrymen about a chemist. By united effort the true advancement of pharmacy is promoted.

The Quest of Markets

At a session of the fifth annual Advertising Convention, held at Newcastle-upon-Tyne on June 17, addresses were given by Sir Gerald Chadwyck-Healey, Bt., chairman of Morgan Brothers (Publishers), Ltd., and other speakers on "The Industrial Press and the Quest of Markets." Different points of view were presented, but there was general agreement that closer co-operation between the technical Press and industry was desirable. Sir Gerald Chadwyck-Healey, in the course of a brief speech, said: "Scientific research and discovery is immensely important to industry. Better industrial processes and equipment mean better and cheaper production. Existing markets are expanded and new markets are opened up as the result of industrial and scientific progress, and in all these directions news is of vital importance. The function of the industrial Press is to collect and distribute this news. The daily newspaper cannot possibly devote sufficient space to serving the needs of industry. The modern industrial newspaper has a highly efficient organisation. In addition to its own competent and highly skilled technical staff, it enjoys the collaboration of the leaders of thought in the scientific and industrial world. It is thus able to keep the industrial and commercial community informed of the very latest happenings in their particular field.

"How is the overseas purchaser to learn what new line of manufactured goods is forthcoming from this country? You can tell him through agents, by sending him catalogues, by personal correspondence, but the most efficient, the cheapest and most secure way is through the columns, both editorial and advertisement, of the industrial newspapers. I use the word "secure" because the reputation of the industrial Press of this country stands so high throughout the world that potential buyers are prepared to put faith in what they read in its columns. I may, perhaps, indicate a few of the ways in which the industrial newspapers help industry. Many of these journals have built up and established inquiry departments as a means of answering questions on technical and commercial matters. I am not going to say that such a department is capable of answering every conundrum put to it; but to quote an instance of the wide range of such inquiries, I would instance an inquiry from Japan for up-to-date machinery for the manufacture of fishhooks and a question as to the date of the erection of the big wheel at Blackpool. In the case of three

journals with which I have the honour to be connected, no fewer than 37,500 inquiries were dealt with during the course of last year. In some cases directories and diaries containing much useful information are published annually in the interests of advertisers, for whose entries no charge is made.

WORLD-WIDE SCOPE OF TECHNICAL JOURNALS

"These are a few of what I may term the internal office workings of a modern industrial newspaper. But they do not end there. The outposts of the world form the extremes of their activities. Editorial representatives are established in many parts of the world, and from time to time special commissioners are sent abroad to report on the state of industry and the condition of markets in far-off lands, so that those who run at home may read. Mr. Murray Allison's book, 'Second Essays on Advertising,' contains a passage which strikes me as extremely to the point:—

"We, as advertising men," he says, "have no use for the manufacturer whose belief in his own goods is such that he declines to brand them with his name and his trade mark, and, incidentally, he has no use for us. We should think carefully before we give our support to any scheme, which tends to place the low-grade product upon the same plane as the high-grade equivalent. Our line is clear. We must continue to root out of obscurity manufacturers of the class of merchandise which has gained for British products a higher reputation throughout the world than the products of any other nation possess. There are thousands of them in Great Britain. We must find them out, win their confidence, and from the treasury of our knowledge and experience we must show them how to sell British goods."

"This can be done, but only by the close co-operation of the manufacturer and the industrial Press. Thirty years ago the personality of the newspaper into which the manufacturer put his advertisement was practically unknown. I think he looked upon the newspaper as a necessary evil and with little or no sympathy. To-day he has come to see that we are, perhaps to his surprise, quite human, and, perhaps still more surprising, possessed of quite a fair amount of brains and vision. Much progress has been made, but much remains to be done. I am convinced that sooner or later, and the sooner the better for British trade, every manufacturer will consider that the journal which represents his particular industry editorially, and to which he pays money in the shape of advertising space, is in reality part and parcel of his own business, a component part of the machinery which helps to generate the power which runs his works and influences his sales. If we can bring this to pass, I am convinced that much will be done for British industry, and 'the anchor of good hope hangs at your cable.'"

Citronella Oils

SUCCESSFUL experiments with various grasses have been carried out by the Senior Agricultural Instructor, Batticaloa District, Ceylon, whose report is mentioned in the "Bulletin of the Imperial Institute," No. 4, 1928. The climate is dry, and the following grasses (arranged in order of oil yield) were distilled:—(1) Ceylon, (2) Lena Batu, (3) Matara Local, (4) Java, (5) Peradeniya. Six samples of oils were examined by the chemist attached to the department and reported on. The "local Damara" citronella oil does not appear to be a citronella oil at all, but a sort of "Mana" oil. It had a geraniol content of only 26 per cent., compared with an average of about 57 per cent. for oils from other Ceylon citronella grasses grown there, and 81.5 per cent. for a sample of Java citronella oil. Another report gives the data of three years' figures of the yields of four types of citronella grass grown at the Borala Experiment Station (Matara District). These were Maha pengiri (Java variety), Maha pengiri (local variety), Lena batu (or Heen) pengiri, and Mana pengiri. The results prove without doubt the definite superiority of the Maha pengiri (Java variety) over the others cultivated, and show an increase of just over 76 per cent. in yield of oil over the local variety (Lena batu pengiri).

The Progress of Pharmacy

AND ALLIED SCIENCES

PHARMACY

Standardisation of Digitalis Tincture.—F. Wokes ("Quarterly Journal of Pharmacy and Pharmacology," II, 1, 48) summarises, with graphs and tables, the results of examining eighty commercial samples of tincture of digitalis. The British Pharmacopœia requirements assume that digitalis leaves always contain approximately the same amount of activity. But when eight samples of English digitalis leaves were assayed by the cat method they showed an average activity similar to that possessed by the international standard, but a variation in activity between different samples of nearly 140 per cent. Among eighty commercial samples of the tincture a variation in activity of nearly 400 per cent. was found, twenty-five of the samples differing by more than 25 per cent. from the activity possessed by a tincture prepared from the international standard powder. Samples of tincture of digitalis were biologically assayed both by the cat and by the frog method. The average experimental errors were 8.7 and 5.9 respectively. The results by the two methods differed from each other by more than the experimental error in seven cases. On the whole, the frog method gave lower results than the cat method. When the age of these tinctures was taken into account the cat and frog results became consistent. It was found that the frog potency diminishes rapidly and steadily during the first few months of storage until it reaches a level of from one-half to two-thirds of its original value, at which point it becomes fairly constant for some years. The cat potency, on the other hand, decreases much more slowly. Tinctures not more than a month old will give the same results when assayed either by the cat or by the frog method. In the case of older tinctures the results will be different, and further clinical evidence is required to show which is the more accurate estimate of the therapeutic value. If the frog method is to be employed comparison must in every case be made with a standard tincture which has not been made longer than a month.

PHARMACEUTICAL CHEMISTRY

Composition of Gum Acacia.—C. L. Butler and L. H. Cretcher ("Journal of the American Chemical Society," 51, 5, 1519) have prepared arabic acid (ash-free gum) from an authenticated sample of Kordofan gum acacia from *Acacia Senegal*, Willd. The acidic nucleus is found to be an aldobionic acid (or galactoso-glucuronic acid). The sugar fraction contained rhamnose, *d*-galactose and *l*-arabinose. The analytical figures correspond roughly to one molecule of aldobionic acid to two of galactose, three of arabinose, and one of methylpentose (or rhamnose). The aldobionic acid ($C_{12}H_{20}O_{12}$) was analytically identical with O'Sullivan's α -arabinosic acid.

Identification of the Common Gums.—W. Weinberger and M. R. Jacobs ("Journal of the American Pharmaceutical Association," XVIII, 1, 34) describe a precipitation method for differentiating gums. The gum, when precipitated by alcohol from aqueous solution, has a characteristic texture which is easily identified. For testing, a 1-per-cent. solution of the gum is used, except in the case of agar and Indian gum, when the solution is made more dilute. To 20 c.c. of test solution 70 c.c. of strong alcohol (95 per cent.) is added drop by

drop, note being taken of the point at which definite precipitation begins. The texture, quality, and other characteristics of the gum precipitates are listed in the following table:—

Gum	Point of definite pptn.	Texture of precipitate	Appearance	Manner of settling	Adherent quality
Acacia	40 c.c.	Very fine flocculent		Slow and cloudy	Did not adhere to either rod or beaker
Tragacanth	10 c.c.	Coagulated, long and stringy	Opaque	Rapidly and clear	Adhered persistently to rod alone, formed a tail when lifted out of solution
Irish moss	20 c.c.	Coagulated and stringy	Translucent	Not very rapidly and clear	Adhered to both rod and beaker, did not form tail, almost as adherent as tragacanth
Agar-agar	20 c.c.	Heavy flocculent	Translucent	Evenly leaving cloudy solution	Adhered, just at surface to both beaker and rod forming a meniscus
Indian gum	15-20 c.c.	Very fine filamentous particles		Clear	Non-adherent
Quince seed	25 c.c.	Coagulated, short and stringy	Opaque	Settled stringy bunches leaving cloudy solution	Non-adherent

AGRICULTURAL CHEMISTRY

Hybrid Cacao is the subject of a note by F. N. Howes in the "Kew Bulletin of Miscellaneous Information," No. 4, 1929. Numerous instances of the wide degree of segregation that takes place on raising trees from seed from a single mother tree are on record, in some instances the seed being from a single pod. This may be due to a heterozygous make-up in cultivated cacao or to cross-pollination, or to both these factors. It is evident that both factors play a part, their respective influences varying with different conditions and in different strains or types of plant. There is no method of telling whether a tree will transmit heavy yield either to its budded or seedling offspring, except by testing it. It is urged that fundamental research is an urgent necessity, so that cacao may be reliably propagated true to type, particularly where yield is concerned. On the average plantation the number of pods produced per tree per annum may vary from less than ten to over two hundred. A scheme has been suggested which will make Trinidad the field for experiment with the Imperial College of Tropical Agriculture as the centre for research.

ANALYTICAL CHEMISTRY

The Determination of Chloride in Bromides, by a new method, is given by R. K. McAlpine in the "Journal of the American Chemical Society," April 1929. The method depends on the use of potassium permanganate and acetone to convert the bromide into bromo-acetone, the chloride then being determined gravimetrically as silver chloride. On samples of about one gram the accuracy lies within 0.1 per cent. The rate at which a solution of

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bromo-acetone reacts with silver nitrate makes the nephelometric method inaccurate for small amounts of chloride. By using a preliminary concentration method samples up to 10 grams can be employed for the accurate analytical testing of high-grade reagents.

Determination of Cyanide in Small Amounts forms the subject of a paper by R. G. Smith in the "Journal of the American Chemical Society," April 1929. The test employed depends on the development of a reddish-brown colour due to formation of the sodium or potassium salt of isopurpuric acid, which occurs when cyanide is added to an alkaline picrate solution. The accuracy of the method, quantitatively, is within one per cent. for amounts of the order of 0.1 mg. The effects of time and temperature on the technique of the test are fully discussed. The presence of certain reducing substances which give a red colour with alkaline picrate solutions may invalidate the method. The author has dealt with this possibility exhaustively, and gives the concentrations of such substances necessary to be an interfering factor. Used qualitatively, the method is sensitive to one part of cyanide (CN) in 50,000,000.

Sensitive Test for Magnesium.—W. L. Ruigh ("Journal of the American Chemical Society," 51, 5, 1456) confirms the statement of Suitsu and Okuma that *o*, *p*-dihydroxy-azo-*p*-nitrobenzene is a very sensitive test for the magnesium ion. The dye is readily prepared by diazotising *p*-nitraniline and coupling it with the theoretical quantity of resorcinol dissolved in dilute sodium hydroxide solution. The dye is precipitated by acidification and collected on a filter. After purification by recrystallisation from methyl alcohol it melts at 199-200°. A convenient concentration consists of 0.5 per cent. of dye in 1-per-cent. sodium hydroxide solution. To test for magnesium ion the solution is made slightly acid by the addition of hydrochloric acid and one drop of reagent is added. A characteristic sky-blue precipitate of a magnesium lake appears upon making alkaline with sodium hydroxide. Excess of ammonia destroys the sensitivity of the reagent, and hence ammonium salts should be "smoked off" in a casserole before applying the test. Nickel and cobalt give somewhat similar blue lakes, but these are removed as sulphides in routine analysis. To detect very small amounts of magnesium (down to $\frac{1}{100}$ mgm.) the stock reagent should be diluted four or five times and the test solution shaken for two or three minutes to coagulate the precipitate which slowly forms.

Assay of Phosphoric Acid.—F. A. Maurina ("Journal of the American Pharmaceutical Association," XVII, 7, 658) finds that the U.S.P. X method of assaying phosphoric acid becomes accurate and reliable when zinc hydroxide is used in place of zinc oxide to neutralise acids set free by interaction of neutral (di-potassium hydrogen) phosphate with decinormal silver nitrate solution. The zinc hydroxide is prepared by shaking very finely powdered zinc carbonate with twice the theoretical amount of potassium hydroxide (in 10-per-cent. solution) necessary for double decomposition. Formation of crystals of zinc hydroxide commences at once, and reaction is complete in from twenty to thirty minutes. The zinc hydroxide is washed free from alkali (by decantation or on a filter) and suspended in water. The assay procedure is similar to the U.S.P. method. The phosphoric acid (about 0.1 gm. diluted with 10 c.c. of water in a 100-c.c. flask) is neutralised with potassium hydroxide solution (chloride-free). Decinormal silver nitrate solution (50 c.c.) is added, followed by four or five drops of litmus solution. Next the suspension of zinc hydroxide is introduced into the flask drop by drop until the original red colour changes to blue. Distilled water is then added to make the volume up to 100 c.c., and, after thorough agitation, filtered through a dry filter paper. To 50 c.c. of the filtrate 2 c.c. of nitric acid and 2 c.c. of test solution of ferric alum are added, and titration of excess of silver is completed with decinormal solution of potassium sulphocyanate (until a permanent red colour is produced). It is stated that invariably good results are obtained as between different operators by the modified process of assay.

BIOLOGICAL CHEMISTRY

The Interpretation of Blood Counts.—S. C. Dyke examines critically ("Lancet," 5509, 681) the accepted standards of the results of blood counts. The usually adopted average of 5,000,000 red cells per c.mm. in the male and 4,500,000 per c.mm. in the female is regarded as sufficiently correct, if a trifle low. A serious difficulty is the silence of text-books on the average amount of hæmoglobin in the blood of healthy subjects. Wintrobe and Miller are quoted as follows:—"It is not generally known that the Sahli instrument accepts 17.2 gm. per 100 c.cm. of blood as 100 per cent., while the Dare is based on 13.8 gm. as the equivalent of 100 per cent.; the Newcomer standard is 16.92 gm., whereas the Tallquist scale is set on a basis of 15.8 gm. This wide variation in the accepted standard is merely a reflection of the inaccurate basis on which these figures have been calculated." In view of the fact that the hæmoglobin percentage of the blood varies with age, sex, altitude, and even, as shown by Dreyer and his co-workers, with the time of day, it is obviously difficult to establish a "normal" standard, and calculations based on any such supposed normal must be accepted with due reservations. Before accurate colour-indices can be calculated the normal average hæmoglobin co-efficient must be established, and when established this is the figure which should be used as 100 per cent. in the various clinical hæmoglobinometers. Failing this, it is in the highest degree desirable that all hæmoglobinometers sent out from the makers for clinical use should bear in plain figures the numbers of grams of hæmoglobin per hundred c.c. of blood representing their particular 100 per cent. Workers could then make their own corrections. "Normals" for the white cells of the blood are even more difficult to assess than for the red cells. It has long been known that these are subject to diurnal variations.

Blood-Platelet Count.—The following method of counting blood-platelets (W. Cramer and R. G. Bannerman, "Lancet," 5515, 994) has been found satisfactory. A syringe, of 1-c.c. capacity, and preferably of the tuberculin type, is mounted with a needle, the bore of which is not too narrow; it is sterilised by repeatedly drawing into it and expelling liquid paraffin, heated well above the boiling point of water. Into this syringe is drawn 0.2 c.c. of 3.8 per cent. solution of sodium citrate; then 0.8 c.c. of blood is taken from a vein fairly rapidly. In this way the blood traverses an anticoagulating surface into an anticoagulating medium. The blood is diluted in the proportion of 4 parts to 1 part of citrate, and can be used not only for determining the ratio of platelets to red corpuscles, but also for making absolute counts of red and white corpuscles, the appropriate correction being made according to the dilution with citrate; the blood is also suitable for the sedimentation test. For counting the platelets a teated pipette is used to mix a small quantity of the blood on a paraffined slide with about 10 times its volume of the following solution:—

Sodium citrate	...	...	...	0.2 gm.
Sodium chloride	...	...	...	0.8 gm.
Brilliant cresyl blue (1 per cent.)	...	...	...	1.0 c.c.
Formalin	...	...	...	2.0 c.c.
Distilled water to	...	...	...	100.0 c.c.

A droplet of this mixture is placed on a clean microscope slide; this is inverted over a clean coverslip which it picks up, and the preparation is immediately sealed with hot liquid vaseline. With a $\frac{1}{12}$ in. oil-immersion objective and an eyepiece containing a squared diaphragm, successive fields are examined until 50 platelets and the accompanying red corpuscles have been counted. An ideal field will contain about 30 red corpuscles; the normal red corpuscle-platelet ratio in man is about 16:1. The absolute number of platelets is obtained by dividing the ratio found into the number of red corpuscles per c.mm., as determined by a separate red cell count. In order to conserve a uniform relative distribution of red corpuscles and platelets it is essential to carry out the manipulations with rapidity. The presence of platelet clumps invalidates the count.

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INDUSTRIAL CHEMISTRY

Constitution of Flax Cellulose.—G. W. Rigby ("Journal of the American Chemical Society," 50, 12, 3,364) has prepared pure flax cellulose. This was a perfectly white, soft and lustrous substance, consisting entirely of a hexose cellulose. All the original long bast fibres were disintegrated into short lengths owing to removal of intercellular material containing a furfural-yielding constituent. The results point to the chemical identity of cotton and flax cellulose apart from relative states of polymerisation.

Decomposition of Wood.—Processes involved in the decomposition of wood, with reference to the chemical composition of fossilised wood, are dealt with by S. A. Waksman and K. R. Stevens in the "Journal of the American Chemical Society," April, 1929. The decomposition under anaerobic conditions, as in peat bogs or in the process of fossilisation, brings about the disappearance of the celluloses and hemicelluloses, and a marked accumulation of the lignin complexes. The nature of the chemical processes involved depends largely upon the micro-organism concerned. There is no justification in assuming that, in the rotting of wood, oxycelluloses are formed as an intermediary step in the formation of "humus" from celluloses. New evidence is presented which establishes the fact that the processes of decomposition are largely microbiological in nature, and that the organisms present will be influenced by the environmental conditions and chemical composition of the plant constituents. The composition of a sample of fossilised oak proved to be largely (70.74 per cent.) composed of lignins, while celluloses (3.38 per cent.) hemicelluloses (3.79 per cent.) and proteins (2.21 per cent.) were very low compared with wood from peat.

PURE CHEMISTRY AND PHYSICS

The Heat of Neutralisation of Acetic Acid is reported on by T. W. Richards and B. J. Nair in "The Journal of the American Chemical Society," March 1929. Much other work on similar subjects is reported in separate papers in the same issue of this journal. The heat of neutralisation of acetic acid and sodium hydroxide was found to be 54,324 joules at 20° at concentrations of $\text{CH}_3\text{COOH} \cdot 100\text{H}_2\text{O}$ and $\text{NaOH} \cdot 100\text{H}_2\text{O}$. The heat of neutralisation at other concentrations is calculated with the aid of thermochemical data presented in previous publications. By extrapolation, upward for acetic acid and downward for strong acid, the heat of reaction $\text{H}^+ + \text{OH}^- = \text{H}_2\text{O}$ was found to be 57.07 kj. or 13.65 calories at 20°.

Higher-boiling Constituents of a Yugoslavian Fusel Oil have been examined by A. C. Chapman and F. A. Hatch and the basic constituents investigated ("Journal of the Society of Chemical Industry," May 3, 1929). The oil was a commercial specimen from molasses, and the bases present consisted mainly of trimethylpyrazine and tetramethylpyrazine, both of which were separated and identified. There were also two bases isomeric with tetramethylpyrazine and probably consisting of ethylpyrazines. Small quantities of higher homologues were present, one of which was separated and found to have the formula $\text{C}_8\text{H}_{11}\text{N}_2$. This does not appear to have been previously obtained. Another, which could not be completely separated, probably had the formula $\text{C}_8\text{H}_{11}\text{N}_2$. There was no evidence of the presence of pyridine or collidine, nor could 2:5-dimethyl-3-ethylpyrazine be detected.

Polarised Light and Cocaine Decomposition is the title of a paper by H. T. Daily and H. C. Benedict in the "Journal of the American Chemical Society," March, 1929. The relative effect of polarised and non-polarised light on the decomposition of cocaine has been studied from the following four standpoints:—(a) Several concentrations of cocaine hydrochloride were used; (b) two different methods of obtaining polarised light were compared; (c) the times of irradiation ranged from one to twelve hours; (d) the effect was tested on goldfish and *Lupinus albus*. It is concluded that polarised radiations have no selective action in the decomposition of cocaine

hydrochloride. Cocaine is slowly decomposed by light. Efforts were made to eliminate such obvious sources of error as the variability of individual goldfish, the tolerance that goldfish develop to cocaine and the effect of traces of impurity in the water.

Catalytic Effect of Ruthenium Salts.—The reaction $\text{ClO}_4^- + 8\text{Br}^- + 8\text{H}^+ = \text{Cl}^- + 4\text{Br}_2 + 4\text{H}_2\text{O}$ has been shown to be catalysed by the presence of ruthenium salts (W. R. Crowell, D. M. Yost and J. M. Carter, "Journal of the American Chemical Society," March, 1929). The rate is roughly proportional to the concentrations of perchlorate ion and of trivalent ruthenium salt, and is considerably accelerated by increasing the concentrations of the bromide and of the acid. The bromide liberated by the reaction slowly converts the trivalent to the quadrivalent salt and the removal of the free bromide by a current of carbon dioxide or by addition of an iodide maintains a larger reaction rate. Experiments prove that trivalent ruthenium has a much greater catalytic effect on the reaction than quadrivalent ruthenium. To explain their observations the authors suggest the following mechanism: the perchloric acid first slowly oxidises the ruthenium from the trivalent to the hexivalent or septivalent state, and the latter is almost instantaneously reduced by the bromide to the trivalent form. The production of quadrivalent ruthenium by oxidation of trivalent ruthenium by the liberated bromine accounts for the secondary effect produced by free bromine.

Structure of Complex Ionic Crystals.—The principles governing this subject are discussed by L. Pauling in the "Journal of the American Chemical Society," April 1929. The conclusions are based on the assumption of a co-ordinated arrangement of anions about each cation at the corners of an approximately regular polyhedron, with the aid of considerations based upon the crystal energy. A new electrostatic principle which is of wide application and considerable power is described. It is shown that the known structures of many complex crystals, in particular the complex silicates, satisfy the requirements of these principles. As an illustration of the application of the principles in the prediction of structures with the co-ordination theory, some properties of the structure of the three forms of Al_2SiO_5 , cyanite, andalusite and sillimanite, are predicted. It is shown that the theory requires that no stable basic silicates of divalent metals exist, and that in aluminium silicates of alkali metals there should be at least one aluminium ion for every alkali ion. The structures of aluminium silicates of divalent metals which are simplest from the co-ordination standpoint are shown to correspond to the formulas $\text{R}_2^{++}\text{Al}_2\text{Si}_3\text{O}_{12}$ and $\text{R}_3^{++}\text{Al}_2\text{Si}_4\text{O}_{18}$, which include the most important minerals of this class.

The Properties of Pure Hydrogen Peroxide have been studied by G. L. Matheson and O. Maass ("Journal of the American Chemical Society," March, 1929). Melting point curves were determined and a comparison was made with the analogous curves in water for potassium chloride, potassium sulphate, sodium fluoride and methyl alcohol. Curves were also obtained for ethyl ether and sulphuric acid in hydrogen peroxide. The melting point curves of *n*-butylamine and the monobutylamine indicated the formation of compounds with hydrogen peroxide. These are probably the first molecular complexes formed in the oxidation of amines to nitro compounds. The oils which separate on mixing anhydrous ether solutions of amines with hydrogen peroxide were analysed and shown to be molecular compounds of peroxide and the base. An accurate determination of the heat of decomposition of hydrogen peroxide was carried out at 20°, which gave the value 23,450 calories for the molecular heat of decomposition into water and oxygen gas at atmospheric pressure. A determination of the vapour density of hydrogen peroxide gave the molecular weight 34. The decomposition of the pure substance was found to change rapidly in character about its boiling point, 151°, from that of a quiet reaction to a violent explosion. The addition of a little water or potassium chloride deadened the effect.

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Oxidation of Unsaturated Compounds.—Géza Braun's paper on this subject, with particular reference to crotonic acids and maleic anhydride, appears in the January 1929 issue of the "Journal of the American Chemical Society." The oxidation of crotonic and isocrotonic acids with perbenzoic acid is described. Crotonic acid gave a *dl*-1,2-dihydroxybutyric acid (m.p. 81.5°), with a yield of 63.5 per cent. of the theoretical. Isocrotonic acid gave a *dl*-1,2-dihydroxybutyric acid (m.p. 74-75°), with a 62.5 per cent. yield. The oxidation of crotonic and isocrotonic acids with silver chlorate in the presence of osmic acid as a catalyst was also undertaken. Crotonic acid gave a *dl*-1,2-dihydroxybutyric acid (m.p. 74-75°), with a yield of 82.5 per cent. Isocrotonic acid gave a *dl*-1,2-dihydroxybutyric acid (m.p. 81.5°), with a yield of 82.5 per cent. Results of the oxidation of crotonic acids with various chlorates in the presence of osmic acid are also described. It has been shown that in the chlorate oxidations the reduction of chlorates proceeds through the lower oxides of chlorine and the mechanism of these oxidations is discussed. The most probable structure of the two theoretically possible *dl*-1,2-dihydroxybutyric acids is suggested, and a modified procedure for the oxidation of the lactone of 3-hydroxyisocrotonic acid with silver and barium chlorates is given. The results of a comparative study of the oxidation of maleic anhydride with silver and barium chlorate are also reported.

Synthesis of an Iso-sucrose.—A paper by J. C. Irvine, J. W. H. Oldham and A. F. Skinner (St. Andrews University) on the condensation of glucose and fructose was published in the "Journal of the American Chemical Society," April, 1929. For the purposes of the research, pure tetra-acetyl- γ -fructose and tetra-acetylchloro- γ -fructose have been prepared for the first time, and their relationship to γ -fructose established by the methylation method. In attempts to synthesize sucrose from these reagents the following reactions have been carried out: (a) condensation of tetra-acetylchloro- γ -fructose with tetra-acetylglucose in the presence of a base, (b) condensation of tetra-acetyl- γ -fructose with tetra-acetylglucose in the presence of a dehydrating agent. In each case the only crystalline product isolated was an iso-sucrose octa-acetate (m. p. 131-132°; optical rotation +20.3° in chloroform). No sucrose octa-acetate was detected, although evidence was obtained that acetylated gluco-fructoses other than iso-sucrose octa-acetate and also diglucoses were formed. The mixed products obtained in the above condensations gave a specific rotation practically identical with that of sucrose and are convertible quantitatively into "invert sugar." This result is, however, fortuitous. Iso-sucrose has been isolated as needles decomposing at 194°, and showing optical rotation +34.2° in water. The compound is hydrolysed more readily than sucrose, and is then converted into "invert sugar." No union of glucose and fructose residues takes place when tetra-acetylbromoglucose is shaken in solution with tetra-acetyl- γ -fructose. The collective results lead to the conclusion that sucrose is β -glucosido- α (γ)-fructose, and that the iso-sucrose now described is β -glucosido- β (γ)-fructose.

Alkaline Earth Phosphates have been investigated by J. L. Lorah, H. V. Tartar and L. Wood ("Journal of the American Chemical Society," April 1929). The purpose of this research was to clarify the confusion regarding the existence of phosphates more basic than the tertiary phosphates. The final product of the hydrolysis of tricalcium phosphate by water is a basic phosphate, the calcium and phosphorus contents of which correspond to that of the compound $3\text{Ca}_3(\text{PO}_4)_2\text{Ca}(\text{OH})_2$. This compound is similar to the mineral apatite, the calcium fluoride or chloride of the latter being replaced by calcium hydroxide. The point of equilibrium between tricalcium phosphate and basic calcium phosphate lies on the acid side of neutrality. Tristrontium phosphate boiled with an aqueous solution of sodium hydroxide hydrolyzes to form a basic strontium phosphate, $3\text{Sr}_3(\text{PO}_4)_2\text{Sr}(\text{OH})_2$, analogous to the basic calcium phosphate. The hydrolysis of tricalcium and of tristrontium phosphate proceeds more rapidly with a

sodium hydroxide solution than with water. The basic strontium phosphate may be prepared by direct precipitation from an alkaline phosphate solution. A method is given for the preparation of tribarium phosphate. No evidence has been obtained to indicate the existence of a barium phosphate more basic than tribarium phosphate. The isotherm for the adsorption of calcium hydroxide shows that in most concentrated solutions approximately one-third of a mol of calcium hydroxide was adsorbed per mol of basic phosphate. Comparison of the curves for three days' and six months' periods indicates that either the calcium hydroxide penetrates the interstices of the solid phase very slowly or solid solutions are formed. The adsorption of calcium hydroxide by tricalcium phosphate is slightly greater than by the basic phosphate. The strong adsorption of calcium hydroxide by tricalcium phosphate and by basic calcium phosphate affords a basis for an explanation of many statements regarding basic phosphates of calcium.

BOTANY

Taxonomic Value of Vein Islet Areas.—F. A. Levin ("Quarterly Journal of Pharmacy and Pharmacology," II, i, 17) has studied the leaves of a number of species of the genus *Barosma* (family Rutaceæ). This was selected because it includes several important medicinal leaves and is specially suited for a study of this type since the species are naturally defined taxonomically by the details of leaf structure. The investigation was extended to other commercially important genera, such as *Cassia*, *Digitalis* and *Erythroxylon*. The term "vein islet" is used to represent "the minute area of photosynthetic tissue encircled by the ultimate divisions of the conducting strands." The author describes the preparation of leaves for examination and the method of determining the average area of the vein islets. At a definite magnification the image of the leaf was projected by means of a series of prisms on to a horizontally placed sheet of paper, upon which a rectangular area representing 4 sq. mm. of leaf surface had been traced. The islets which fell within this area were counted, and from this figure the average area of one vein was determined. For a broad leaf like *Barosma betulina* the area used was a square, but for a narrow leaf like *B. serratifolia* a rectangle was preferred. The venation of the leaf was examined to determine which portion of the lamina had the most constant average vein islet area. All counts recorded were made in the central portion of the lamina, excluding the midrib and margin. The author states that it is more convenient to express the results in terms of the number of vein islets per square millimetre. This is termed the "vein islet number," and all results in the author's tables of vein islet area counts are expressed in terms of "vein islet number." Nine species of *Barosma* were examined: *B. betulina*, *crenulata*, *serratifolia*, *Bathii*, *venusta*, *pulchella*, *ovata*, *Pegleræ*, *scoparia*. In each species the vein islet number varies over a limited range. The leaves of *B. serratifolia* show a variation of 9 to 24. This range is large, but an examination of the leaves shows that they fall into two distinct groups, each with a separate vein islet number range, the var. *latifolia* having a range of 9 to 15 and *longifolia* 17 to 24. *B. crenulata* is another species which is subdivided into varieties. *B. venusta* has the largest vein islets, 5-7. *B. ovata* has much smaller vein islets, 15.5-19 per sq. mm. A consideration of the whole group leads the author to conclude that the vein islet numbers are of little value in establishing points of difference between the species used in medicine, viz., *betulina*, *crenulata*, *serratifolia*; but should prove of much value in detecting leaves of other species of *Barosma* which occur as admixtures or substitutes. The results obtained from the study of the vein islet areas of the leaves of species of the genus *Barosma* suggested that the vein islet number might be an especially useful figure in examining drugs like senna, coca and digitalis. For the genus *Cassia* the following are the average vein islet numbers: *obovata* 16, *angustifolia* 21, *auriculata* 22, *acutifolia* 26, *montana* 26. The vein islet numbers in these leaves provide a useful and practical means of distinguishing between Alexan-

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drian and Indian senna. The leaflets of *C. auriculata* and *C. obovata* can be detected when admixed with Alexandrian senna by determining the vein islet numbers of the leaves. Eight leaves of *Erythroxylon coca* had vein islet numbers, which varied from 8 to 12. Thirteen leaves of *E. truxillense* had vein islet numbers which varied from 15–26. This character thus forms a means of distinguishing between Bolivian and Peruvian coca. The vein islet numbers of *Digitalis purpurea*, *D. lutea*, *D. lanata* and *D. ambigua* were determined. The vein islet number for the species *D. purpurea* varies between 2–5.5; *D. lutea* 1–5; *D. lanata* 2–3.5; *D. ambigua* 2–2.5. The leaves of *D. lutea* can thus be distinguished from the official leaves.

DENTISTRY

Preparing Cavity for Synthetic Filling.—G. Linea, in "Stomatologia Italiana," makes a useful suggestion with regard to the lining of synthetic fillings. To counteract the well-known tendency of the free phosphoric acid in synthetic fillings to injure the pulp it is advocated that the cavity should be thoroughly dried, washed out with a solution of calcium hydrate, and then again dried with hot air. The free phosphoric acid combines with the calcium, forming calcium phosphate, which is innocuous. This layer of calcium phosphate has been found to adhere very closely to both the dentine and the subsequent synthetic filling. The technique is very simple, and the suggestion appears to be worthy of a good trial.

Incidence of Spirochete and Fusiform Bacillus in gingival inflammations and its diagnostic value form the subject of a paper by S. Greenberg and P. Greenberg in the "Dental Cosmos," April 1929. These bacilli have been considered as the likely causative agent in Vincent's infection, but studies of fusiform bacilli by Varney have revealed their harmless nature when injected into animals. The authors find that the spirochete incident to most inflammations in the mouth, and point out that since the fusiform bacillus is indistinguishable microscopically in many of its forms, it cannot be relied upon for diagnosis by the smear method. In all the cases of typical Vincent's infection examined, the primary lesions were generally found to be entirely free of these organisms, and it is suggested that proof of their etiological significance as the sole cause should be looked upon with scepticism. The authors affirm that other organisms must be carefully studied in order to arrive at a better understanding of the cause of Vincent's infection. Culturing and animal inoculation will have to be resorted to.

The Antiseptic Value of Iodine is dealt with in a note in the "British Journal of Dental Science," June 1929. Experiments conducted recently have definitely established the superiority of iodine as an antiseptic for oral surgery. Tested against mercurochrome, iodine in less than two per cent. solution was definitely superior. The addition of glycerine added greatly to the bactericidal power of the iodine. The standard astringent mixture as used at Guy's Hospital is therefore probably the best antiseptic which can be used for painting the mouth. The formula is as follows:—

Zinc iodide	...	...	...	...	gr. 15
Distilled water	...	...	...	...	℥ 10
Iodine	...	...	...	...	gr. 25
Glycerin	...	...	...	...	3iss.

This preparation is invaluable for all inflammatory conditions in the mouth. The astringent properties of zinc iodide are far superior to those of any other drug which can be used in the mouth. When this mixture is made up with decolorised iodine it is extremely useful for patients to use at their homes for massaging the gums. Zinc iodide is difficult to obtain and expensive to dispense as very few stock it. It is therefore advisable to have a fair quantity made up, as the definite amount of the salt, when obtained, must either be dispensed at once or the balance left over, thrown away.

Research on Dental Amalgams.—The minutes of the Dental Board of the United Kingdom (No. 59), May 5, 1929, contain the findings of the Dental Investigation Committee, Department of Scientific and Industrial Research, which commenced work on amalgams at the National Physical Laboratory in December 1923. The experiments have been planned with a view to the determination of the factors necessary for the equilibrium constitution of the ternary alloys of silver, tin and mercury. Each of the binary systems of alloys, silver-tin, silver-mercury and tin-mercury must first be investigated. Work on the silver-tin alloys was completed and the results published in 1926. Much attention has since been given to the phenomenon of "ageing" observed in most alloys, and it has been established that the property is attributable to Ag₃Sn, since the degree of ageing in an alloy is dependent on the proportion of this compound present. The only other compound so far found to possess this property of ageing is that of gold and tin, AuSn, the crystal structure of which is quite different from that of Ag₃Sn. A striking observation relates to the amalgam which corresponds in composition to the compound Ag₂Hg₃, containing approximately 29 per cent. silver. Prepared either by fusion or by trituration this alloy was found to contain a large proportion of mercury rich constituent which was liquid at ordinary temperatures, and the definitely duplex nature indicates that it does not consist of an intermetallic compound Ag₂Hg₃. This result is of great significance, since the view is widely held that the process of amalgamation of silver-tin alloys is essentially the reaction $\text{Ag}_3\text{Sn} + 4\text{Hg} \rightarrow \text{Ag}_2\text{Hg}_3 + \text{Sn}$. The general research work has now been carried to the point where the constitution of the silver-tin alloys has been fully worked out, that of tin-mercury alloys has been determined in its main outline, but, in the case of the silver-mercury alloys, a considerable amount of work has yet to be done.

ESSENTIAL OILS

The Essential Oils of Sawara Leaves are discussed by Uchida, in the "Journal of the Society of Chemical Industries, Japan," 1928, 31, p. 642. Steam distillation of 94.4 kilos of sawara leaves gave 1.004 gm. (1.07 per cent.) of an oil with a pale yellow colour, and a fresh odour. Its constants were:—Specific gravity 0.8939; refractive index, 1.4710; optical rotation, +12.55°; acid value, 1.50; saponification value, 55.20; ester value, 53.70; ester value after acetylation, 64.49. The constituents of the oil were pelargonic acid, undecyclic acid, *d*- α -pinene, dipentene, borneol, bornylacetate, bornylformate, and a tricyclic diterpene. About 75 per cent. of the oil consisted of terpenes (mainly *d*- α -pinene), 20 per cent. of esters, 3 per cent. of alcohol, and 2 per cent. of the diterpene.

Estimation of Cineol in Eucalyptus Oil.—Experiments on this subject, with special reference to the crude oil obtained from *Eucalyptus cineorifolia*, by P. A. Berry, are published in the "Australasian Journal of Pharmacy," March 20, 1928. The results are concerned with an individual species of eucalyptus oil to which reference of the use of the ortho-cresol method had not been previously recorded. Interesting graphs and tables appear. The conclusion is that the ortho-cresol method is satisfactory, while the phosphoric acid process yields hopelessly inaccurate results. The degree of accuracy of the ortho-cresol method itself is not high compared with analytical methods in general, but it gives concordant results, and the author considers it much better than any method yet suggested for the estimation of cineol. The effect of other constituents is much less pronounced with this method than is the case with the phosphoric acid and other processes. Mr. Berry confidently predicts the inclusion of the ortho-cresol test in the next B.P. for the estimation of eucalyptus and cajuput oils.

The Essential Oils of Hiba and the relation to the resistance of the wood to the attack of fungi is dealt with by So. Uchida in the "Journal of the Society of

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Chemical Industries, Japan," 1928, 31, p. 501. On steam distillation 353.1 kilos of powdered hiba wood, containing 27.73 per cent. of water, yielded 3.82 gm. of a ruddy brown oil whose principal constants were found to be as follows:—Specific gravity, 0.9574; refractive index, 1.5110; optical rotation (in a 17.23 per cent. chloroformic solution), -26.72 . The main constituent of this oil is a tricyclic sesquiterpene. It is inactive, and is a colourless viscous liquid having formula $C_{15}H_{24}$. The oil also contains substances which are poisonous to the fungi which destroy the hiba wood. The same author on p. 491 describes the essential oil of hiba leaves. On condensing the vapour from 82.5 kilos of leaves yield 686 gm. of an oil having a pale yellow colour, and a fresh odour were obtained. Its constants were:—Specific gravity, 0.8857; refractive index, 1.4729; optical rotation, $+27.67$; acid value, 3.76; saponification value, 32.68; ester value, 29.12; ester value after acetylation, 112.2. The main constituents isolated were undecycylinic acid, sabinene, dipentene, borneol, sabinol, bornyl and sabinyl acetates, and a dicyclic sesquiterpene. About 50 per cent. of the oil consisted of terpenes (sabinene and dipentene), 27 per cent. of a mixture of sabinol and borneol, 10 per cent. of esters, and 13 per cent. of diterpenes.

Essential Oils from Conifers are dealt with in the "Journal of the Russian Physico-Chemical Society," 1928, No. 60. Oil of *Pinus sylvestris* has been examined by G. V. Pigulevski and Z. M. Zaikina, who have studied both the oil and resin at various stages of formation. It was found that the increase of resin is continuous. The oil does not increase in amount after the beginning of July, although the needles continue to grow until the middle of August. The rotation of the oil from the needles is from -15.44° to $+7.52^\circ$, and from the twigs, -15.3° to -45.68° . The oil and resin are of very complex constitution and contain free acids, esters, and ethers. Oil from *Sesseli dyctotomum* has been investigated by V. I. Nilov, with the following results:—Specific gravity, 0.8754; optical rotation, -5.5 ; refractive index, 1.4775. About ninety-four per cent. distilled over below 75° at 20 mm. A nitroschloride yielding a nitrosoterpene on treatment with sodium ethoxide indicated α -pinene in the first fraction. Oxidation of the higher fractions yielded no pinic acid, m.p. 126° showing the presence of β -pinene. V. I. Nilov also studied oils from the seeds of *Smyrnum perfoliatum*. Distillation yielded a deep violet liquid fraction and a solid crystalline one. Fractionation *in vacuo* of the liquid portion gave four fractions:—(a) had boiling point $160-65^\circ$, specific gravity 0.8767, refractive index 1.4810, and consisted of an unidentified hydrocarbon; (b) had boiling point $135-40^\circ$, specific gravity 0.9167, refractive index 1.5061, and consisted of the sesquiterpene $C_{15}H_{24}$; (c) had boiling point $140-43^\circ$, and was a mixture of substances; (d) had boiling point $160-70^\circ$, and was dark blue in colour but turned to violet on keeping. The crystalline fraction gave a compound $C_{15}H_{22}O$, having melting point 56° , boiling point $143-44^\circ$, specific gravity at 56° was 0.9797, and the refractive index 1.5100. This contained neither a hydroxyl nor a carboxyl group. A hydrocarbon boiling at $135-40^\circ$, with specific gravity 0.9339 to 0.9321, and refractive index 1.4870 was obtained on reduction.

Essential Oils of New Species of Boronia.—A. R. Penfold ("Journal of Proceedings of Royal Society, New South Wales," LXII, p. 263) describes the botany of a new species which he calls *Boronia dentigeroides*. This species bears a strong superficial resemblance to the closely allied species *Boronia dentigera* and *B. anemonifolia*. The oil of *B. dentigeroides* was found to differ greatly from that of these allied species in that it contains 75-80 per cent. of ocimene. Steam distillation of leaves and terminal branches gave about 1.5 per cent. of oil varying from pale yellow to almost water white. The oil is very mobile, and possesses a pleasant characteristic odour, which is difficult to describe. The constants of a sample of the oil which was distilled in

1898 and stored in the dark until 1920, when its constants were determined, were compared with those of the present samples and found not to vary. Crystals of diminene tetrabromide, showing the presence of α -limonene, were prepared and d - α -pinene and crude pinonic acid also isolated. Difficulty was experienced in establishing definitely the strongly suspected presence of ocimene. An alcohol was identified as ethyl alcohol. Another alcohol from a higher fraction was identified as darwinol, the slightly low constants being due to the presence of a small amount of geraniol. The high boiling fractions were shown by the usual colour reactions to consist mainly of sesquiterpenes, but the quantities available were too small for purification. Small quantities, about 0.3 per cent. of phenolic constituents were present, and a paraffin with m.p. $64-66^\circ$ was also determined. An examination of the oil from a variety of *Boronia thujona* found in Fraser Island, and known as "thin leaved" *Boronia pinnata*, shows striking differences from the oils of closely allied species (p. 225). Steam distillation of leaves and terminal branches yielded 0.5 to 0.6 per cent. of yellow oils, heavier than water, of high refraction, fluorescent, and with a strong smell of safrol. Treatment of the lower boiling fractions, with four times their volume of glacial acetic acid after saturation with water, followed by treatment with bromine at -20° yielded crystals of limonene tetrabromide, melting sharply at 104° . By fractionation a crude safrol was also obtained. Oxidation with chromic acid in glacial acetic acid yielded solid heliotropine melting sharply at 37° , confirming the identity of the phenol as safrol. Complex phenols were also identified and the residues of the safrol fractions contained small quantities of sesquiterpenes. Work on other varieties of *Boronia* confirmed previously published results.

Oil of Cymbopogon Coloratus.—P. Parameswaran Pillai, B. Sanjiva Rao and John Lionel Simonsen have investigated the oil from the flower heads of *Cymbopogon coloratus*, one of the lemon grasses of the Malabar district of the Carnatic ("Journal of the Indian Institute of Science," Vol. IIA, 181). This grass was planted in Fiji in 1907, and the oil had as its principal constituents l -limonene and other terpenes (7 per cent.), aldehydes, chiefly citral (40 per cent.), and geraniol (23 per cent.). The Indian oil has an entirely different constitution, containing l -camphene (15 per cent.), l -limonene (7 per cent.), camphor (a trace), l -borneol (8 per cent.), geraniol (10 per cent.), sesquiterpenes (35 per cent.), sesquiterpene oxide (2.3 per cent.), sesquiterpene alcohols (8 per cent.), and unidentified matter (14 per cent.). On cooling and recrystallising from alcohol the l -camphene crystallised. Crystalline camphene has only previously been obtained from citronella oil and from Siberian pine needle oil. The oil was dried over magnesium sulphate, and was found to have the following constants:—Specific gravity, 0.9183; refractive index, 1.4819; optical rotation, -20.7 ; acid value, 2.3; saponification value, 39.8; saponification value after acetylation, 111.2; aldehyde by sodium bisulphite test, nil. After digestion with potassium hydroxide in alcohol the oil was distilled in a Young head still at 100 m.m., and a number of the fractions examined and their constants tabulated. Most of the terpenes were contained in the first three fractions; these were redistilled and fractions obtained were also examined and their constants tabulated. The first to come over were crystallised repeatedly from alcohol and found to be almost pure l -camphene. This was confirmed by conversion into l -isoborneol (m.p. 212°). On oxidation with alkaline potassium permanganate an excellent yield of camphene-camphoric acid (m.p. 142°) was obtained from a middle fraction. A higher fraction on treatment with hydrogen chloride in acetic acid solution gave dipentene dihydrochloride (m.p. 50°), which was not depressed by adding an authentic specimen. The final fraction gave l -limonene tetrabromide (m.p. 104°), optical rotation -73.4 in chloroform solution. These higher fractions consisted of l -limonene. On repeated distillation of the fractions boiling above 165° at 100 m.m., at 6 m.m.,

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using a four-pear Young still-head, the following fractions were obtained:—

No.	b.p. at 6 m.m.	Specific gravity	Refractive index	Optical rotation	Yield per cent.
A ..	110-118°	0.9171	1.4992	5.3°	1.9
B ..	120-130°	0.9238	1.4990	7.1°	1.8
C ..	135-140°	0.9348	1.4953	8.3°	20.3
D ..	140-145°	0.9542	1.4983	—	1.3
E ..	145-160°	0.9738	1.5032	—	5.8

After distillation of fractions A and B over sodium until the reaction was complete the following analyses were obtained:—(A) C, 82.1; H, 11.4. (B) C, 83.1; H, 11.4 per cent. These indicate the presence of an oxygenated compound $C_{15}H_{24}O$ (requires C. 81.8; H. 10.9 per cent.). These fractions did not contain a methoxyl group, nor did they react with the usual ketonic reagents. A crystalline nitrosite was formed on treatment with potassium nitrite and acetic acid, but it could not be isolated. These fractions may contain a sesquiterpene oxide. Fraction C yielded a crystalline nitrosochloride, m.p. 171° (found N 5.5; N 5.2 per cent. is required by $C_{15}H_{24}ONCl$) and a crystalline nitrosoate m.p. 154° (found N 9.6; N 9.4 per cent. is required by $C_{15}H_{24}O_4N_2$). They both gave a derivative m.p. 126°-128° on treatment with benzylamine, suggesting the presence of *d*- α -caryophyllene. This is regarded as the principal sesquiterpene present, in spite of the failure to prepare α -caryophyllene alcohol and α -caryophyllene dihydrochloride. Fractions D and E consisted of sesquiterpene alcohols, but were not examined. Examination of the alkaline solution from the treatment of the original oil with alcoholic potassium hydroxide solution indicates the presence of propionic, capric and lauric acids.

FIXED OILS AND FATS

Synthetic Glycerides.—H. P. Averill, J. N. Roche and C. G. King ("Journal of the American Chemical Society," 51, 3, 866) have prepared a number of symmetrical and unsymmetrical mixed glycerides to extend and recheck existing data. In each of the nine sets of isomeric glycerides the symmetrical isomer has a higher melting point than that of the corresponding unsymmetrical compound. The data concerning glycerides of known constitution should be valuable in studying the components of natural fats and oils. The melting points are as follows:—

a-Monoglycerides

<i>a</i> -Monopalmitin ..	77.0
<i>a</i> -Monomyristin ..	67.3
<i>a</i> -Monocaprin ..	51.4
<i>a</i> -Monolaurin ..	63.0
<i>a</i> -Monostearin ..	81.1

a, *a*-Diglycerides

<i>a</i> , <i>a</i> -Dilaurin ..	56.6
<i>a</i> , <i>a</i> -Distearin ..	79.1
<i>a</i> , <i>a</i> -Dipalmitin ..	69.5
<i>a</i> , <i>a</i> -Dimyristin ..	68.8-64.4

Triglycerides

β -Trilaurin ..	45.6
β -Stearo- <i>a</i> , <i>a</i> -dilaurin ..	50.9
α -Stearo- <i>a</i> , β -dilaurin ..	45.4
β -Lauro- <i>a</i> , <i>a</i> -dimyristin ..	49.2-49.5
<i>a</i> -Lauro- <i>a</i> , β -dimyristin ..	48.5
β -Palmito- <i>a</i> , <i>a</i> -dimyristin ..	59.8-60.0
<i>a</i> -Palmito- <i>a</i> , β -dimyristin ..	53.0
β -Stearo- <i>a</i> , <i>a</i> -dipalmitin ..	64.8
<i>a</i> -Stearo- <i>a</i> , β -dipalmitin ..	62.6
β -Capro- <i>a</i> , <i>a</i> -dipalmitin ..	66.0
<i>a</i> -Capro- <i>a</i> , β -dipalmitin ..	60.0
β -Lauro- <i>a</i> , <i>a</i> -dipalmitin ..	63.5-64.0
<i>a</i> -Lauro- <i>a</i> , β -dipalmitin ..	54.5
β -Myristo- <i>a</i> , <i>a</i> -dipalmitin ..	58.5-59.0
<i>a</i> -Myristo- <i>a</i> , β -dipalmitin ..	55.5
<i>a</i> -Lauro- <i>a</i> , β -distearin ..	50.9

Rapid Testing for Oil Contents.—A new method of analysis which will shorten laboratory work and give more efficient plant control for the vegetable oil industry has been elaborated by D. A. Coleman and H. C. Fellows, "Technical Bulletin," No. 71, by the United States Department of Agriculture. This paper is entitled "A Simple Method for Determining the Oil Content of Seeds and Other Oil-Bearing Materials." The conclusion reached is that the optical method of testing (applied to cotton-

seed products by Weeson) is the best method. Tables of the procedure necessary in the application to a number of commodities have been worked out and a standard practice for each is recommended. By this method determinations can be made in fifteen minutes (at a cost for materials of less than one per cent. per test), and these agree very closely with results obtained by the standard ether extraction method. The test can also be applied in breeding experiments with oil-bearing plants. By this new optical method it is possible to make tests with samples of half a gram and get satisfactory results. The technique of such a test is not materially different from that of the general test, and the following is a brief survey of the various steps:—Weigh the material to be tested, unground, into a mortar which has previously been heated. Add about twice the bulk of halowax (an impure substituted monochloronaphthalene) and a convenient quantity of fine sea sand. Reduce the material to a fine state of subdivision with the aid of the pestle. Filter, catching the filtrate in a test-tube and perform the optical test. This optical test consists of determining the refractive index at a definitely stated temperature, and comparing the figure with readings in a conversion table previously prepared from a determination of the refractive index (at the stated temperature) of weighed mixtures of the vegetable oil being studied and halowax.

MATERIA MEDICA

Identity of Banisterine and Harmine.—J. A. Gunn finds ("Lancet," 5511,769 and 5518,1140) that the evidence for the identity of banisterine (an alkaloid of *Banisteria caapi*) and harmine (an alkaloid of *Peganum harmala*), a problem at which he has worked for some time, is now sufficiently complete. This has been shown in regard to lethality, symptomatology, and to effects on isolated tissues such as the uterus, spleen, and voluntary muscle. This identity is of practical importance. In the first place, harmine is at present more easily obtainable than banisterine, so that it can be more easily procured for clinical use, should uses for it be established. In the second place, owing to the chemical researches of Perkin, Robinson and others, an accurate knowledge is to hand even of the structural composition of the harmala alkaloids and of many of their derivatives, some of which may prove of greater therapeutic value than harmine itself. The assistance of the firm of E. Merck is acknowledged.

MEDICINE

Magnesium Sulphate for Leg Ulcers.—J. H. Young ("Lancet," 5515, 976) publishes results obtained by the application of a 5-10-per-cent. solution of magnesium sulphate in cases of ulcered leg. The patients were kept in bed and the dressing was renewed thrice daily. All the cases (some of which were of several years' standing) responded to the treatment with excellent results. Commenting on this monograph in the next issue of the paper, A. E. Sawday advocates the use of Unna's paste, applied under a bandage, on the ground that while equally effective it does not necessitate confinement to bed.

Treatment of Varicocele.—N. J. Kilbourne, in a lengthy monograph ("Journal of the American Medical Association," 92, 16, 1320), compares the results of operation and of injection in a large number of cases of varicocele. His survey of 4,607 cases shows that the mortality by operative excision of varicose veins in the United States is one in 250. The mortality by injection cannot be so accurately determined, but a study of about 50,000 cases shows that it is less than one in 4,000. Recurrences after operation average 30 per cent. and after injection 6 per cent. Although embolism, phlebitis, ulcer formation and gangrene are rare, no injection should be made until they have been prevented by thorough preliminary study.

Salyrgan as Diuretic.—A lengthy report (illustrated with charts) of trials of salyrgan as a diuretic in oedema has been issued ("Journal of the American Medical Association," 91, 26, 2060) by M. H. Barker and J. P. O'Hare. A 10-per-cent. solution is given

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intravenously, starting with a dose of 0.5 c.c. The authors' paper concludes:—(1) Salyrgan is a good diuretic with a wide range of usage, and it is relatively non-irritating. (2) It is of particular value in circulatory failure and the ascites due to cirrhosis of the liver and chronic nephrosis. It may be of great help in the ascites of malignant and inflammatory origin. (3) Salyrgan . . . is much more effective in the presence of acid-forming salts, and the ammonium ion seems to be most effective when supplied as ammonium chloride or nitrate.

Bismuth Sodium Tartrate as Diuretic.—The diuretic action of bismuth sodium tartrate has been tried on five patients by P. J. Hawzlik, A. L. Bloomfield, A. B. Stockton and D. A. Wood ("Journal of the American Medical Association," 92, 17, 1413). Charts illustrate their monograph. The authors conclude that bismuth sodium tartrate, injected intramuscularly in doses of 0.03 gm., causes a prompt and well sustained diuresis in subjects with and without edema. This action occurs without demonstrable local or systemic reactions and apparently without injury to renal functional efficiency. The excretion of bismuth after bismuth sodium tartrate is prompt, and more rapid and complete than after the insoluble and oil-suspended bismuth products, this being of practical importance in circumventing possibilities of harm from the stored bismuth of the latter.

Vitamin A as Anti-Infective Agent.—E. Mellanby and H. N. Green give ("British Medical Journal," 3569, 984) details of treatment of puerperal septicemia with vitamin-A concentrates, supplied by The British Drug Houses, Ltd., and Lever Brothers, Ltd. In most cases the preparations were given by mouth. It appears that the effect of vitamin A is rather to increase gradually the general resistance than to act suddenly, as might be expected in the case of a substance having a specific bactericidal or antitoxic effect. Blood cultures in all cases became sterile, and although the number of cultures made in each case was too few to allow the determination of the exact time required for this development, it was usually found that about a fortnight after the beginning of administration of vitamin A no organisms could be grown from the blood. All the five cases treated made complete recoveries, indicating that vitamin A can raise the resistance of the body against septic and infective micro-organisms.

Rectal Ether.—The following formula for rectal ether is given by B. Hughes ("British Medical Journal," 3567, 897) as the outcome of several experiments with different mixtures:—

Magnesium sulphate	...	...	2 oz.
Glucose	...	...	1½ oz.
Olive oil	...	...	1 fl. oz.
Acacia	...	...	5½ dr.
Ether	...	...	4 fl. oz.
Paraldehyde	...	...	4 fl. dr.
Morphine sulphate	...	...	¼ grain
Water	...	...	to 12½ fl. oz. (approx.)

Rub the acacia with olive oil in a dry mortar, dissolve the magnesium sulphate and glucose in 7 oz. of water, then add 1 fl. oz. of this solution to the acacia and olive oil; gradually add the remainder. Transfer to bottle of 16-oz. capacity and add the morphine sulphate, previously dissolved in water. Dissolve the paraldehyde in ether and add gradually, shaking well. Make up to 12½ fl. oz. (approximately).

The anæsthetic solution should be made up the evening before operation, securely corked, and kept in a cool place. It is not safe to use a solution that is thirty-six hours old.

Graded Sunlight.—F. F. Tisdall and A. Brown have carried out experiments, using rats fed on a rachitogenic diet, in order to test the relation of the sun's altitude to its antirachitic effect ("Journal of the American Medical Association," 92, 11, 860). Professor C. A. Chant, of Toronto University, worked out for the purposes of the investigation the time in each day, during a selected period, at which the sun reached the altitudes

of 25, 30, 35, 40 and 45 degrees. The summary of the author's conclusion is:—(1) A marked increase occurs in the antirachitic effect of sunshine when the sun reaches an altitude of 35 degrees or more; (2) a study of the geographical distribution of rickets shows that rickets is uncommon or exists chiefly in a mild form in those places where the minimum seasonal altitude of the sun is not below about 35 degrees; (3) conversely, severe rickets is chiefly encountered in those cities where the altitude of the sun is below 35 degrees for some months of the year; (4) the period of the year during which rickets will probably develop can be calculated for any city in the world.

Phenylhydrazine Hydrochloride in Polycythæmia Vera.—W. Mackay ("Lancet," 5511, 762) discusses the action of phenylhydrazine hydrochloride in polycythæmia vera. Tables and a graph accompany the text. The total daily doses varied from 4½ gr. to 6 gr. There seems to be no doubt that phenylhydrazine given by mouth is an effective agent in bringing about destruction of red cells. The action on the hæmopoietic system is not clear. While the beneficial action of phenylhydrazine hydrochloride is only temporary, its use in the treatment of polycythæmia vera is justified by the feeling of well-being and the freedom from symptoms which it produces, always provided that its exhibition is controlled by frequent blood counts, and that it is discontinued when the number of red cells reaches about 4,500,000. While as yet there is no definite contra-indication, it must always be remembered that phenylhydrazine hydrochloride is a protoplasmic poison, and should be used, therefore, with care and respect. In the "Journal of the American Medical Association" (92, 18, 1505) H. Z. Giffen and H. M. Conner enunciate the following principles of treatment: (1) Patients with advanced polycythæmia vera of a grade necessitating confinement to bed should not receive phenylhydrazine. (2) Extreme caution should be observed in administering phenylhydrazine to patients more than sixty years of age, to patients who have marked arteriosclerosis, and to patients who manifest evidence of advanced visceral injury. It is wise to give a very small dose to such patients, possibly only 0.1 or 0.2 gm. (3) Patients who have probably had thrombosis should be treated cautiously. (4) Every effort should be made to keep the already sluggish circulation as free as possible. (5) Excessive dosage in the initial course of treatment is not necessary. Experience may indicate that the daily administration of the drug over a period of a week or ten days is not necessary, and that a small dose each week will be safer. A subsequent issue of the "Journal" (92, 19, 1596) contained a note by N. S. Davis on the preparation of capsules of phenylhydrazine hydrochloride. It was noticed in a Chicago hospital that the drug was so hygroscopic that capsules containing it decomposed overnight. Heavy magnesium oxide was added to the capsules in an attempt to overcome this. It was successful, but apparently rendered the phenylhydrazine inactive, as 0.1 gm. in capsules with 0.3 gm. of magnesium oxide, three times daily, had no effect on the red cell count. Calcium lactate was substituted for the magnesium oxide and was found just as effective in preventing decomposition of the capsules.

HYGIENE

Etiology of Beri-Beri.—An investigation, partly on the human organism and partly on birds, has been carried out by S. Matsumura and twelve collaborators ("Journal of the American Pharmaceutical Association," 92, 16, 1325) in order to study the etiology of beri-beri. It has been tacitly assumed that beri-beri must be caused solely by the absence of vitamin B in the diet. This opinion does not seem to be tenable when viewed in the light of the seasonal occurrence of beri-beri in epidemic proportions in the Orient, and support for this doubt is afforded by the results of laboratory and clinical observations. The main diet of the people of Japan proper, especially in the island of Hondo, is largely rice. In winter, however, the fields are frozen, so there is much less vegetable food than in the summer.

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It follows that the diet of the inhabitants with respect to vegetables is materially reduced in winter, and they perform are required to subsist very largely on rice. Beri-beri, however, seems to occur much more commonly in summer; in winter there are comparatively few cases. Overstrain, lack of exercise, insufficient sleep and intemperance seem to predispose to beri-beri, just as they do to other diseases. Usually, also, beri-beri occurs most commonly where conditions are insanitary. The results of the author's experiments on animals seem to prove that the beri-beri bacillus should be judged the principal etiologic factor in experimental beri-beri. A deficient diet, consisting of polished rice, seems to be merely a factor that constitutes a disposition to the disease.

OPTICS

Protective Glasses for Welders.—J. W. Forest ("Optician and Scientific Instrument Maker," December 7, 1928) points out that the energy given out by a high-intensity welding arc renders it necessary for the operator to be provided with glasses, the absorption of which has been carefully worked out. Recent research has enabled the manufacturer to put on the market a glass that will in varying thickness and densities answer the three demands of a good protective glass; that is, it will have ultra-violet absorption great enough to eliminate completely the external effects due to short wave radiation; visible absorption sufficient to take away glare and retinal fatigue; and infra-red absorption to prevent any retinal or corneal effect. Typical specifications for protective glasses are shown below:—

Percentage of Rays Transmitted

Shade No.	Visiblo Rays, 400-700 μ		Infra-Red Rays Above 700 μ
	Minimum	Maximum	Maximum
3	14.0	18.0	9.0
4	5.0	8.0	5.0
5	1.2	2.4	2.5
6	0.5	1.0	1.5
8	0.15	0.30	1.0
10	0.005	0.015	0.6
12	0.001	0.004	0.5
14	0.0001	0.0005	0.3

Shade No.	Ultra-Violet Rays			
	313	334	365	405
	Maximum	Maximum	Maximum	Maximum
3	0.2	0.2	0.5	1.0
4	0.2	0.2	0.5	1.0
5	0.2	0.2	0.2	0.5
6	0.1	0.1	0.1	0.5
8	0.1	0.1	0.1	0.5
10	0.1	0.1	0.1	0.5
12	0.05	0.05	0.05	0.1
14	0.05	0.05	0.05	0.1

The general uses for which each shade has been designed is as follows:—(3) Reflected sunlight from snow, sand, water, and other outdoor subjects; (4) pouring and furnace work; (5) light acetylene cutting and welding, light electric spot welding; (6) acetylene cutting and medium acetylene welding, arc welding up to 30 amperes; (8) heavy acetylene welding, arc cutting and welding between 30 and 75 amperes; (10) arc cutting and welding between 75 and 200 amperes; (12) arc cutting and welding between 200 and 400 amperes; (14) arc cutting and welding at 400 amperes and over.

PHARMACOLOGY

New Anæsthetics.—N. W. Bolyard and S. M. McElvain ("Journal of the American Chemical Society," 51, 3, 923) call attention to the anæsthetic properties of phenylethyl derivatives of 1-alkyl-4-piperidyl benzoates and *p*-amino-benzoates. 1-phenylethyl-4-piperidyl benzoate possesses about seven times the anæsthetic power of cocaine, and has

a subcutaneous activity approximately equal to procaine. So far as these investigators are aware, there is no local anæsthetic approaching this compound in its ability to produce and sustain anæsthesia of the rabbit's cornea.

Non-toxic Germicide.—G. E. Hilbert and T. B. Johnson ("Journal of the American Chemical Society," 51, 5, 1526) have made a study of the germicidal activity of diaryl sulphide phenols. Special attention is directed to the high phenol coefficient (115) of *p*-hydroxydiphenylsulphide. Though this compound has the highest phenol co-efficient of any known phenolic compound tested, it is comparatively non-toxic. The minimum lethal dose for (small) rabbits is 1.5 gm. per lb. The *m*-hydroxydiphenylsulphide has a phenol coefficient of 68 and the *o*-compound has a corresponding germicidal activity of 33.

Toxicity Tests for Novarsenobenzene.—The Medical Research Council has issued a report (Stationery Office, 1s. 9d.) of an investigation, conducted by Florence M. Durham, J. H. Gadum and J. E. Marchal, into the toxicity of novarsenobenzene. The authors point out that the composition of the product, wherever manufactured, has never corresponded closely with the theoretical formula. Their experience does not support the assumption that toxicity and curative activity vary together. The results obtained by British, Japanese and American workers with mice are not concordant. With the adoption of precautions on the lines of those recommended by the International Conference in April 1928 a stable central standard should soon be available. While the authors are not in a position to deny the possibility that the two properties, toxicity and efficacy, may show a certain parallelism within a limited range of samples of a particular manufacture, it seems clear to them that, for the present, it will be necessary to maintain independent tests for the two, both carried out in relation to a common standard.

Action of Ephedrine.—Addressing a section of the Royal Society of Medicine on May 14, J. H. Thompson ("British Medical Journal," 3568, 954) said he had found that a considerable number of people failed to respond to ephedrine. This could not be put down to inactivity of any of the samples of ephedrine used. He could not find anything abnormal about these people, except that there was definite evidence of failure of full development, of secondary male characteristics. In other persons subjected to the investigation he noticed a definite latent period before the rise in blood pressure which normally took place. On subcutaneous or intramuscular injection, this latent period was from 2½ to 3 minutes, and on oral administration from 7 to 10 minutes. During this latent period the blood pressure often exhibited an initial fall, quite irrespective of the mode of administration. The rise of blood pressure which succeeded was very much greater if the administration was by injection than if it was by mouth. The oral effect, less marked though it was, was increased if the ephedrine was given on an empty stomach. The eventual rise of blood pressure in these cases was somewhat striking. It had been freely stated that after the injection of ephedrine the blood pressure for a considerable period was well maintained, but the experiments which the speaker had made contradicted that view. There was, first of all, well-marked rise of blood pressure which persisted only for a few minutes, and then there was a return to normal blood pressure. This was succeeded by a second rise, and it might be there were five or six such rises of blood pressure occurring over a period of one hour to one hour and a quarter. If the drug was administered intramuscularly or subcutaneously, the rise of blood pressure was greater, and the rises more rapid than with the oral method, though not so many rises occurred. Another factor was that the blood pressure, after a series of rises, fell below the normal—that is to say, there was a marked after-fall. In one experiment the blood pressure was maintained at the low level of 109 for forty minutes, and an hour later it had risen only to 117—a very slow recovery. These facts would indicate the need for caution in the administration of ephedrine. Commenting on the discussion in a subsequent issue (3570) of the paper, E. G. Recordon

The Progress of Pharmacy and Allied Sciences

gives a summary of a considerable number of asthma cases treated with ephedrine. Unqualified success was secured in 27 per cent. of the cases. Several of the patients were children.

Preservation of Anæsthetic Ether.—C. L. Hewer discusses ("Lancet," 5511,770) the efforts made to preserve anæsthetic ether from developing decomposition products, particularly in the case of ether through which gases are bubbled. As the outcome of his experiments, he concludes:—(1) Pure ether treated with carbon dioxide and stored in copper containers will keep pure almost indefinitely. (2) If anæsthetic gases are bubbled through ether for prolonged periods, the rate of decomposition will be greatly diminished if there is an adequate area of copper above and below the ether level. The assistance of Mr. F. H. Carr is acknowledged.

Action of Cinchophen.—The use of cinchophen in gout and its toxic effects on susceptible subjects or in excessive doses are discussed ("Lancet," 5510, 704) by G. Evans and A. W. Spence. Reviewing the literature, they point out that Schroeder in 1922 collected seventeen cases of cinchophen poisoning, the most prominent symptoms being an urticarial eruption, with or without oedema, albuminuria, fever, headache, malaise, and gastric intestinal disturbances; in two cases there were also cardiac symptoms. He reported symptoms of poisoning even with small doses. Recently twenty cases of jaundice attributed to poisoning by cinchophen have been reported by Worster-Drought and others. Omitting one case of which clinical details are not available, and a second attributed to atquinol, eighteen cases of jaundice following the administration of cinchophen have been reported, seven of which were fatal. In three cases the symptoms were those of icterus gravis, and at autopsy the livers showed acute yellow atrophy. From a study of the individual cases it is evident that the symptoms of poisoning occurred after therapeutic doses, except in three cases in which considerable doses of cinchophen were taken over long periods without medical supervision. The authors proceed to give details of cases in which they themselves have observed some of the symptoms indicated by previous investigators. They sum up by remarking that in cinchophen we have a drug which is often invaluable in the treatment of chronic gout, and in certain cases of this disease a cure can be effected, or great alleviation of symptoms obtained, such as cannot be effected by colchicum or any other means. Toxic symptoms of any severity rarely occur, and by a knowledge of the proper use of the drug even these can be avoided. At the same time it must be clearly recognised that toxic symptoms due to cinchophen do sometimes occur, and after relatively small doses, in those who have an idiosyncrasy to the drug. Certain precautions should always be taken in prescribing cinchophen. A small initial dose should be given to test the patient's tolerance of the drug. It is given with water after meals, and if there is any symptom of gastric irritation it is given with 15 gr. of sodium bicarbonate (cinchophen and sodium bicarbonate cannot be prescribed in the same mixture). It is generally best given on three days in succession each week, but there are occasions in which a smaller dose of cinchophen is more efficient and is well tolerated when distributed throughout the week; some patients can take the drug continuously. When nutrition is poor and there is a suspicion of poor glycogen reserves in the liver an ample carbohydrate diet should be given. Finally, any person taking cinchophen must be under medical supervision, and with the appearance of symptoms of liver poisoning, of which a loss of appetite is the first, the drug should be stopped at once.

VETERINARY MEDICINE

Blacktongue Preventive.—The canine disease known as blacktongue or Stuttgart dog epizootic is the subject of an experimental study by J. Goldberger, G. A. Wheeler, R. D. Lillie, and L. M. Rogers in the U.S. Public Health Reports (Reprint No. 1216). The experimental evidence

points to the identity of blacktongue in dogs with human pellagra, and that the curative factor in yeast is the pellagra vitamin P-P. Blacktongue could be produced by vitamin deficient dietary and cured by a "something" in yeast, which is a blacktongue preventive and is inactivated by heat.

Visceral Gout in Poultry.—G. Mayall ("Veterinary Journal," May 1929) states that the causes of this disease are giving food rich in protein and insufficient exercise. The disease which is said to occur in birds kept confined, such as pigeons and cage birds, and is met with also in guinea fowls, pheasants, ducks and geese, is not often recognised during life, but there may be weakness, loss of appetite, diarrhoea, lack of good condition and a dark blue colour of the comb. Treatment is to change the food and put the fowls out on grass; green food is desirable, and not much corn—sodium bicarbonate, lithium sulphate, tincture of colchicum or salicylic acid pills are medicinal remedies to be advocated.

Starch Digestion in the Dog.—B. B. Roseboom and J. W. Patton ("Journal of the American Veterinary Medical Association," April 1929) state that it would appear that dogs are capable of digesting and assimilating starch, both raw and cooked, even in large amounts. The salivary secretions, as well as the pancreatic juices appear to contain amylolytic power. From the feeding experiments conducted it would appear that potato and macaroni, in reasonable amounts, are efficiently handled by dogs both young and old. The residue resembling potato in the faeces of dogs fed on this tuber appears to be cellulose, void of all starch, and as such not capable of digestion. Apparently an alcoholic extract of dog pancreas is as efficient in diastatic power as that of the pig pancreas.

Tetany in Welsh Mountain Ponies.—R. F. Montgomerie, W. Hall Savage and E. C. Dodds ("Veterinary Record," April 20, 1929) describe a condition met among Welsh mountain ponies, known in North Wales as "lock-jaw" and diagnosed as tetany. It has been observed in suckling mares soon after their being housed and in ponies of either sex which have just completed a journey by rail. The subcutaneous or, in the mare, intramammary injection of air produced a rapid return to normal. Analysis showed that the calcium content of the blood of affected ponies was very low, the phosphorus and alkali reserve figures high, and that bile pigments, probably of hæmolytic origin, were present. Simple confinement produced a similar, but much less marked, departure from the "normal" analysis in three pony mares. Subcutaneous injection of air altered little, if at all, the chemical composition of the blood of three healthy ponies. The part which hypernæmia—resulting from the conditions under which the affected ponies had travelled—may have played in the genesis of alkalosis and tetany, is discussed.

Postponement of Senility in Dogs.—F. A. E. Crew ("Veterinary Record," March 9, 1929) points out that it has been shown that the assumption that natural senescence is the expression of a physiological disharmony resulting from the breakdown of one of the many organ-systems of the animal body is a reasonable working hypothesis. Recently there has been developed another line of approach. It has been shown that it is possible to control the physiological activity of the gonad by the injection of substances extracted from the anterior pituitary and present also in the blood and urine of the pregnant female. These so-called *p*-factors, though not chemically analysed as yet, can be identified by their action. They give to the veterinarian the power of postponing natural senescence and of prolonging the reproductive life of the individual. So far their use has been restricted entirely to experimentation, but the time has come when it should be tested out under the conditions of veterinary practice. It is now possible to offer this treatment to a series of dogs, not as a piece of experimentation, but as an example of therapeutics. The treatment would take the form of a series of hypodermic injections of *p*-factors.

Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling, packing, etc. Qualities of chemicals, drugs, essential and fixed oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

42 Cannon Street, E.C.4, June 20.

SMALL hand-to-mouth orders are still the rule of the markets, and even these are somewhat spasmodic. Crude drugs have been neglected, although, strangely enough, the majority of the price movements in this section are in the higher and firmer directions. Gum acacia shows a further advance, Japanese agar-agar, croton oil and vanilla being also higher. Sandarac, areca, aloes and West Indian tamarinds are all tending firm. Buchu leaves, ergots and Japanese menthol are on easier levels, and squills have definitely declined. Among the seeds Mazagan canary and caraway are easier, with coriander cheaper. Metals are unchanged over the week. Essential oils are for the most part dull, but the Board of Trade Statistics show continued increases. Star anise, camphor and neroli are higher, bay and geraniums firmer, with Japanese demethylised peppermint and Paraguay petitgrain easier. A fair volume of business has been passing in industrial chemicals, where there are a few alterations in price. These are towards lower values, and include ammonium chloride, formaldehyde, formic acid and potassium carbonate. Coal-tar products are quiet and generally unchanged, though pitch shows a further advance. Pharmaceutical chemicals show a refreshing activity with a consequent spate of price alterations. Calcium lactate and potassium sulphoguaiacolate are dearer; amidopyrin, barbitone, guaiacol carbonate and sodium diethylbarbiturate are firmer; methyl sulphonal has collapsed to the values which have been prevailing privately. Among vegetable oils there are also some important changes. Palm oils are dearer. Castor and soya bean oils are easier, while coconut, groundnut, turpentine and French grades of resin have declined. In animal oils, bone grease is much easier. Lubricating oils show no changes. Peppers are very firm for shipment, and shellac has recovered slightly. Pimento, for shipment, is easier.

Higher	Firmer	Easier	Lower
Agar-agar	Aloes	Bone grease	Ammonium
Anise oil	Amidopyrin	Buchu leaves	chloride
Calcium lactate	Areca nuts	Canary seed	Coconut oil
Camphor oil	Barbitone	Caraway seed	Coriander seed
Croton oil	Bay oil	Castor oil	Formaldehyde
Gum acacia	Geranium oils	Ergots	Formic acid
Neroli oil	Guaiacol	Menthol	Groundnut oil
Palm oils	carbonate	Peppermint oil	Methyl
Pitch	Peppers (c.i.f.)	(Jp.) sulphonal	Potassium
Potassium	Sandarac	Petitgrain oil	carbonate
sulpho-	Shellac	Pimento (c.i.f.)	Resin (Fr.)
guaiacolate	Sodium diethyl-	Soya oil	Squills
Vanilla	barbiturate		Turpentine
	Tamarinds		

Cablegram

BERGEN, June 19.—The catch of cod since the opening of the season amounts to 77,400,000, against 63,174,000 on the corresponding date last year. The yield of steam-refined cod-liver oil amounts to 90,545 hectolitres, against 49,949 hectolitres at this time a year ago. The market for finest new (1929) Lofoten oil is dull, and values are unchanged.

Crude Drugs, etc.

AGAR-AGAR.—Japanese has advanced sharply on the spot, No. 1 Kobe strip being now quoted at 4s. 1½d. and No. 2 Kobe at 3s. 11d. per lb. To arrive, Kobe No. 1 vessel declared, is worth 3s. 10½d., and June-July shipment 3s. 9½d.

ALOES.—Capes are dearer at 41s. to 41s. 6d. for good hard bright No. 1 grade on firmer limits being sent over from the other side. Curacao (Barbs.) are also dearer at 14s. for fine pale livers. Good smooth livery are offered sparingly at 130s. and part Capey at 125s. The c.i.f. quotations are all at prohibitive prices. Socotrine continue firm at their recent levels of £7 7s. 6d. for the few kegs here of part pesty but bright quality. Fino Zanzibars, in skins, on offer at £6. Mochas at £5 per cwt. are not by any means plentiful.

ARECA is in small supply, being quoted at 40s. per cwt. for fairly bold sound quality.

BALSAMS.—Tolu is available on the spot at 4s. 2d. to 4s. 3d. per lb. and inclined easy. Canada is quoted at 5s. per lb. in quantities.

BUCHU LEAVES are easier. New crop rounds and ovals have been arriving, so that stocks are ample for current needs. Good green stalkless rounds are offered at 1s. 2d. per lb., with part stalky at 1s. 1d. and old crop from 11d. to 1s., as to quality. New crop ovals are quoted 1s. 1½d. for good green, with last season's at 11d. to 1s. per lb.

CANNABIS INDICA remains firm. Genuine Bombay tops are now in short supply and strictly limited at 40s. per lb. For good green African 4s. is wanted.

CASCARILLA BARK.—Quills on spot are quoted 4s. 3d. per lb. Good quality siftings are offered at 2s. 4d. to 2s. 6d. per lb.

CASTORUM.—The Hudson Bay Co. have appointed an agent to market medicinal goods, and castorum is one of these. A new scheme is being developed which will give employment to the fur trappers during the close season. The production of castorum extract at the source is being organised and it is probable that the annual sale of pods in London will be discontinued.

CINNAMON.—Ceylon on the spot is worth from 2s. 1d. to 1s. 10d. per lb., according to quality, while chips are available at 4½d. to 5d. The Board of Trade Returns show that 15 tons were imported in the month of May and seven tons exported. Total imports for January-May amounted to 147 tons, against 93 in 1928, while exports rose to 40 from 23 tons.

CLOVES.—Zanzibar were easy early in the week, but closed steady at 1s. 4½d. per lb. on the spot. There are sellers forward at 1s. 2d. c.i.f. for June-August and 1½d. c.i.f. for August-October shipments. Madagascar are also available on spot at 1s. 4½d., with the future on a basis of 10½d. per lb. c.i.f. for October-December shipment. There were no landings last week. Deliveries of Zanzibar were 155 bales, leaving 1,620 in stock. Deliveries of Madagascar were 10 bales, leaving a stock of 555. The total stocks were 2,175 bales against 10,103 in 1928 and 12,640 in 1927.

COD-LIVER OIL remains steady, and although there is a quieter tone ruling at present this is general at this period of the year. Fishing is now practically at an end and the final figures for the total production are expected very shortly. Prices from agents remain unchanged at from 103s. to 108s. per barrel c.i.f. for finest 1929 Lofoten non-freezing medicinal oil.

BERGEN, June 13.—The market is quiet at about 110s. per barrel c.i.f. London. Owing to the low prices demand has been of great importance in the first five months of the year, and considerable business has been done. The exports of oil for medicinal purposes up to May 31 amount to 44,028 barrels, against 23,199 barrels on the same date last year.

CROTON OIL is in limited supply and dearer as quoted at 6s. 3d. to 6s. 6d. per lb. on the spot.

DRAGONS BLOOD has been in fair demand, and at present there is very little fine fiery reboiled on the spot. The lower grades are also scarce, and good bright slabs have been fetching from £17 to £20 per cwt. Zanzibar drop is slow, and could be bought at £6 to £6 10s. per cwt.

EUONYMUS ROOT BARK is quoted on the spot at 2s. 10d. to 3s. per lb., according to quantity.

ERGOT.—Buyers appear to have been satisfied, so that values are nominal and inclined to ease. Portuguese is quoted 2s. 2d. to 2s. 3d. per lb. on spot. Russian is offered at 1s. and good bold Polish is called 1s. 3d. per lb.

GINGER.—All grades are firm. Good business is reported in grinding qualities of Jamaica, and the market has been cleared of anything offered below 85s. New York is reported to be buying direct from Jamaica and values are generally up from 7s. 6d. to 10s. per cwt. over the prices ruling a month ago. West African is now held for 63s. per cwt. and sales of small parcels took place at 65s. on the spot. Sound Cochon on the spot is quoted 77s. per cwt. Imports of all grades during May amounted to 240 tons, making 479 for the period January-May 1929, against 399 last year. Exports for the month of May were 40 tons, bringing the total for January-May up to 144 tons, against 262 tons a year ago.

GUM ACACIA is still advancing on the spot, where 90s. is now asked for natural Kordofan. Cleaned is quoted 95s., and small to bold bleached from 120s. to 130s., according to grade.

HYDRASTIS ROOT is neglected at 13s. 9d. per lb. c.i.f.

JUNIFER BERRIES are none too plentiful, the so-called Eastern variety not being on offer. Italian on the spot 29s. per cwt.

KOLA.—Demand has been good at 6d. per lb. for bright sound West Indian halves and 5½d. for part dullish.

LIME JUICE is slowly moving into consumption, and, in the absence of fresh arrivals, stocks are getting smaller.

Values remain unchanged from last week, good pale 5s., fair 4s. 9d., old crop 4s. 3d. to 4s. 6d. per gallon.

MAGNESIUM.—There has been a good steady demand, and the outlook is if anything, increasing at current rates. These range from 3s. 3d. to 3s. 9d. for small sticks and bars, while ribbon is selling at 11s. to 14s. and powder at 4s. 6d. up to 7s. 6d. per lb., according to quantity and quality.

MENTHOL is easier and Kobayashi-Suzuki is now offered at 19s. 8d. per lb. on the spot. Shipment values range from 18s. 9d. to 19s. 1½d. c.i.f., according to position.

MERCURY.—There has been no actual change in the position, although perhaps a little more business has been effected on the spot in small lots on the basis of £22 2s. 6d. to £22 5s. per bottle, less the usual discount. There is very little to be said about the prospective demand which is likely to remain of a hand-to-mouth character unless something happens to influence the market either way. New York keeps steady at about \$122 per bottle duty paid, and the quotation for shipment from Spain or Italy stands as before at £21 15s. per bottle, f.o.b. Business from the Eastern markets is rather idle, practically no inquiry being reported either from China or Japan. Total U.K. imports for the five months to the end of May were 1,908 bottles against 7,639 bottles for the corresponding period of last year.

PEPPER was much firmer at the beginning of the week, but closed steady at last week's price of 1s. 4½d. per lb. on the spot for Singapore. Shipment rates are, however, dearer at 1s. 4½d. c.i.f. for May-July position. Lampong is 1s. 4½d. on spot, and sales forward were made at 1s. 4½d. c.i.f. for May-July and 1s. 3½d. for August-October. Some buying of both Tellicherry and Alleppy has been done on a basis of 1s. 4½d. per lb. on the spot. White Muntok on the spot is firm at 2s. 3½d. per lb., but futures are dearer at 2s. 4½d. c.i.f. for May-July and 2s. 0½d. c.i.f. for August-October. The total imports during May 1929, were 1,231 tons, making 5,199 tons for the January-May period against 3,465 tons over the same period last year. Exports were 435 tons, making 2,070 tons for January-May against 3,045 in 1928.

PIMENTO is quiet on the spot at 1s. 2½d. per lb. The forward positions are weak and easier at 12½s. per cwt. c.i.f. for July-August and 11½s. c.i.f. for August-October.

RUBBER remains unchanged, with a slightly better inquiry. During the past week there has been a fair amount of spot rubber bought by manufacturers, and off grades especially seem to have been wanted. The result of the American questionnaire has now come to hand, and the consumption for the month of May totals 49,233 tons, which confirms the views expressed by us on this subject last week. Furthermore, shipments from the East are also slightly down. Arrivals last week totalled 1,142 tons, while deliveries were 1,635 tons, showing a decrease of 493 tons in the stocks. The London stock now stands at 31,142 tons, against 41,165 tons at the same period last year. Quotations (Wednesday 5 p.m.): No. 1 standard ribbed smoked sheet, spot and June, 10½d.; July-September, 10½d.; October-December, 11½d. to 11½d. per lb.

SANDARAC is scarce and higher prices are quoted from origin. For ordinary pale gum, rather dull, 300s. per cwt. is the limit on spot.

SEEDS.—**ANISE.**—Spanish is quoted at 65s. and Russian firm at 28s. 6d. per cwt. **CANARY.**—Mazagan is a little easier on spot at 23s. 6d. per cwt. Saffi remains at 23s. per cwt. spot, and for new crop, July-August shipment, the price is 21s. per cwt. c.i.f. **CARAWAY** on the spot is a little easier at 42s. 6d. per cwt. **CUMIN.**—Maltese is unchanged at 55s. per cwt. spot; Morocco is quoted at 49s., although a parcel of five tons was sold at 48s. 6d. per cwt. For forward shipment the market is a little firmer; July-August is now quoted at 47s. c.i.f. **CORIANDER** is in very poor demand on spot at 12s. 6d.; for new crop, July-August shipment, business has been done at 10s. 9d. c.i.f. **FENUGREEK.**—There is none to be had on spot. The market for new crop is firm at 15s. 3d. c.i.f. for July-August shipment. **LINSEED** is 22s. per cwt. spot, and for new crop the price is 18s. c.i.f. **FENNEL** on the spot remains at 68s. per cwt., and for prompt shipment sellers cable 62s. c.i.f. **MUSTARD.**—English remains at 27s. to 31s. per cwt., according to quality.

SHELLAC has been dull, but some activity towards the close has resulted in firmer quotations. Usual standard TN is now selling at 197s. 6d. per cwt., which represents a 2s. 6d. advance. Fine orange ranges from 210s. to 300s., pure button is 235s., and AC cakey 205s. per cwt. For delivery TN has been sold for August at 196s. 6d., 200s. was paid for October, and at the close there were buyers at 199s. For arrival 187s. c.i.f. was paid for June-July. The Board of Trade Returns for May indicate an alarming decline in export trade. Imports for May were 740 tons, and exports only 100 tons. Imports for January-May amounted to 4,268

tons against 2,712 in 1928, and the exports over the same periods were 580 and 1,841 tons respectively.

SQUILLS on the spot are lower owing to the easier forward quotations. New crop for August-September shipment is quoted 24s., although good palish quality, due at the end of this month, is 27s. 6d. Fairly white on spot is offered at 37s. 6d., and manufacturing is 32s. 6d. per cwt.

STROPHANTHUS is moving. The 100 per cent. Kombé is selling at 6s. 3d. per lb., with ordinary fetching 2s. 3d. to 2s. 6d., according to quality.

TAMARINDS.—The few barrels of West Indian offering last week have been partly sold, and to-day's value is 60s. to 65s. per cwt. There is, as yet, no news of any fresh supplies.

VANILLA.—All grades have been advanced. Fine 7-inch Bourbons are now 9s. per lb., with Seychelles offered at 7s. 6d. Manufacturing qualities are about 6s. 3d. per lb.

Essential Oils

The features this week are the sharp advance in star anise and the strengthening of the position in geraniums. Camphor oil is dearer, and the quotations for new season's neroli confirm the predictions of higher rates. Bay oil is also firmer. Japanese dementiolised peppermint and Paraguay petitgrain are on the easy side. The Board of Trade Returns for May show continued advances in all sections, in spite of the general complaints of dull trade.

The following are the quantities and values of natural essential oils (other than turpentine) imported into and re-exported from Great Britain during May 1929, compared with the same months in 1927 and 1928, also for the five months ending May in the respective years:—

		1927	1928	1929
May imports	.. lb.	316,852	291,789	330,296
	value	£95,294	£105,490	£129,356
Jan.-May imports	.. lb.	1,554,380	1,699,071	1,868,493
	value	£476,972	£489,070	£671,092
May re-exports	.. lb.	81,844	59,965	77,576
	value	£34,499	£25,256	£39,485
Jan.-May re-exports	.. lb.	341,196	343,529	352,136
	value	£148,616	£123,758	£170,993

ANISE (STAR).—There is not much business passing, but a few orders on a market which was already almost bare of leads, coupled with stronger future quotations, has brought about a sharp advance, which has been reflected at the source. "Red Ship," in leads, has been sold on spot at 2s. 10½d., and the latest shipment quotation is 2s. 9d. per lb. c.i.f. Cases of tins on spot are quoted 2s. 8d., and drums at 2s. 6d. per lb., with the c.i.f. prices at 2s. 8d. and 2s. 6d. per lb. respectively.

BAY.—West Indian oil testing 50-55 per cent. phenols is firmer at 7s. 9d. per lb. on spot.

BERGAMOT is still weak and neglected at prices ranging from 16s. 6d. to 17s. on the spot and 16s. to 16s. 6d. per lb. lb. c.i.f., according to seller, for the 37-38 per cent. l.a.

CAJUPUT is unchanged at 3s. per lb. on the spot.

CAMPHOR.—Japanese white is getting extremely scarce, and an order for 20 drums would probably strip the market. The value is in the region of 150s. per cwt. on the spot. Brown is also nominal at about 160s.

CASSIA is being ignored altogether and quotations are now purely nominal at 4s. 10d. per lb. on the spot for 80-85 per cent., guaranteed free from alcohol. Shipment is now offered at 4s. 2d. per lb. c.i.f. on a London analysis. Cheaper offers are made concerning oil containing traces of alcohol, and a parcel for shipment on a Hongkong test is reported available at under the 4s. c.i.f. mark.

CITRONELLA.—Ceylon has firmed up both on spot and forward, but no advances are recorded. The value from the source is 1s. 8d. c.i.f. and spot supplies can be had at 1s. 10½d. per lb. Java is maintained at the recently advanced rate of 2s. 5½d. per lb. c.i.f., and 2s. 4d. to 2s. 5d. on spot.

GERANIUMS are very firm. Bourbon is in short supply from the source at 19s. 9d. per lb. c.i.f., and 20s. has been paid on the spot. Stocks of Algerian at the source are now exhausted and holders on spot are asking 21s. per lb.

LEMON is virtually unchanged though firm and steady. Sicilian on the spot ranges from 15s. 6d. to 16s. per lb. with shipment offers at 15s. 3d. to 15s. 9d. c.i.f. It is rumoured that an attempt is being made at Messina to corner the remaining supplies. There are cheaper quotations for what may be machine-made oil, but the above rates are those quoted by reputable dealers for genuine hand-pressed oil. Arrivals during the past week have been heavier than for some time.

NEROLI.—These are very few sellers of new season's French, and it is not easy to fill forward orders. The quotation for pure is now available, and will mean a 95s. per oz. value on the spot.

ORANGE is unchanged at 17s. 6d. per lb. on the spot for genuine Sicilian and 17s. c.i.f. for shipment. The recent weakness is said to be traceable to over-production of Californian, where large numbers of culls were available for production of oil following heavy frosts.

PENNYROYL.—Spanish is quoted 3s. 9d. per lb. spot.

PEPPERMINT.—Japanese demethylated is neglected and easier at 6s. 3d. per lb. on the spot for Kobayashi-Suzuki on large orders. The shipment value ranges from 6s. to 6s. 1½d. per lb. c.i.f., according to position. American natural tin oil is also in poor demand at 12s. to 12s. 6d. per lb. c.i.f., and 12s. 6d. to 12s. 9d. on the spot according to brand. Italo-Mitcham is firm at 17s. per lb. for rectified and 16s. for crude.

PETITGRAIN.—Recent arrivals have replenished spot stocks and an easier tone in Paraguay is evident. Supplies are now offered at 7s. 6d. per lb. on the spot. The production of French is said to be negligible, and practically none is expected to reach the London market.

ROSEMARY.—Good grade Spanish is offered on the spot at 2s. per lb.

SPIKE.—Spanish on the spot is quoted 3s. per lb.

WORMSEED (OHENOPodium) is still available at 7s. 9d. c.i.f., with the spot value at 9s. per lb.

The following arrivals have taken place from the countries indicated during the period June 5 to June 11 (inclusive): Almond (Fr.), 2 cs.; camphor (Ger.), 1 dm.; cassia (Ch.), 20 cs.; clove (Fr.), 1 dm.; geranium (Fr.), 2 dm.; iris (Fr.), 1 cs.; lemon (It.) 2 cs., (U.S.) 20 cs.; lime (B.W.I.), 23 cs.; mandarin (It.), 2 cs.; orange (It.) 1 cs., (Fr.) 1 dm.; (U.S.) 2 cs., (B.W.I.) 1 cs.; palmarosa (Br. Ind.) 1 cs.; patchouli (Strs.), 10 cs.; peppermint (Jp.) 30 cs., (Fr.) 12 cs., (U.S.) 4 cs.; petitgrain (Arg. Rep.), 8 dm.; rose (Fr.), 1 cs.; spearmint (U.S.), 1 cs.; wormseed (U.S.), 1 cs.; undescribed (Fr.) 16 cs., (Ger.) 8 dm.

The following arrivals have taken place from the countries indicated during the period June 12 to June 18 (inclusive): Anise (Ch.), 4 pkgs.; bergamot (It.), 6 cs.; cananga (Jv.), 5 dm.; caraway (Neth.), 10 cs. eadamoms (U.S.), 1 cs.; cassia (Ch.), 1 cs.; cedarwood (U.S.), 1 dm.; citronella (Jv.) 14 dm., (Jp.) 2 dm.; copaiba (U.S.), 1 cs.; eucalyptus (Aust.), 10 cs.; geranium (Fr.), 2 dm.; gingergrass (Br. Ind.), 1 dm.; jasmine (Fr.), 1 cs.; lemon (Ger.) 21 cs., (It.) 36 cs.; lemongrass (Guat.), 1 dm.; lime (B.W.I.), 10 cs.; mandarin (It.), 2 cs.; nutmeg (U.S.), 9 cs.; orange (It.), 32 cs.; palmarosa (Br. Ind.), 3 dm.; peppermint (U.S.), 15 cs., 11 dm. (Jp.) 5 cs.; petitgrain (Arg.), 20 cs.; rosemary (S.C.S.St.) 1 dm., (Sp.) 2 dm.; savin (Ger.), 1 cs.; spike (Sp.), 5 dm.; undescribed (Sp.) 2 dm., (Fr.) 6 cs.

Pharmaceutical Chemicals, etc.

SOME further alterations in prices are recorded this week. The spot value for methyl sulphonal is weakening and seems likely to move to a lower level. Lactic acid B.P. is unsteady. Vanillin prices are keen. Phenacetin and phenazone are firm and tend to advance. Potassium sulphoguaiacolate, sodium diethylbarbiturate and barbitone are firmer.

AMIDOPYRIN is firm and tends to advance from present rates of 8s. 6d. to 8s. 9d. per lb.

BARBITONE.—The position here is curious; spot is still offered at 6s. to 6s. 3d. per lb., while Continental makers have been off the market for some weeks and no news can be obtained as to their idea of prices for the future. This is one of the few products that was not affected by the recent general advance in prices.

BENZALDEHYDE is quoted at 1s. 10d. per lb., for quantities in carboys; small lots, 2s.; material of .03 quality.

BENZOIC ACID (B.P.) continues firm on a fairly bright market: quantities, ex works, 2s. 1d.; spot parcels, 2s. 2d. to 2s. 3d. per lb.

BROMIDES.—The market is generally unchanged and a slightly better volume of business is reported. Dealers quote: ammonium, 1s. 10½d.; potassium, B.P., crystals, 1s. 7d.; granular, 1s. 7d.; sodium, B.P., 1s. 9½d. to 1s. 10d. per lb., for quantities in cases. British makers' prices: ammonium, 1s. 11½d.; potassium, B.P., crystals, 1s. 8½d.; granular, 1s. 7½d.; sodium, B.P., 1s. 10½d. per lb., in cwt. lots.

CAFFEINE.—The position on the Continent is unchanged and the spot market has settled down at the prices given in our last week's report.

CALCIUM LACTATE is a shade dearer, with the minimum price for quantities at 1s. 2½d.; smaller parcels up to 1s. 3½d. per lb.

CITRIC ACID (B.P. crystals).—There has been quite a good spot business moving, but there still seems to be some quantity of second-hand stuff available: spot is very steady at 2s. 1½d. to 2s. 2d. per lb., less 5 per cent., for foreign.

CREAM OF TARTAR continues firm, with a tendency for the market to advance: foreign 99 to 100 per cent., 96s. to 37s. 6d. per cwt., less 2½ per cent.

EPSOM SALTS remain quiet, with spot parcels of commercial quality at £4 5s. per ton, in single bags, ex store; B.P. quality, about £2 more.

GUAIACOL CARBONATE is firming up, with the spot market now at 5s. 3d., and tending to go higher.

HYDROQUINONE is fairly active: Convention prices are: five-cwt. lots, 3s. 8d. up to 3s. 11d. for 14-lb. parcels.

LACTIC ACID.—Convention prices are unchanged at 1s. 7½d. for ton lots up to 1s. 10½d. per lb. for small lots. There is some indication of price-cutting from one source which may affect the market.

METHYL SALICYLATE (B.P.) is at makers' prices of 1s. 6d. to 1s. 8d. per lb.; it is not known whether the entry of a new home source of supply will affect the market at all.

METHYL SULPHONAL.—Recently prices for this article were advanced to 13s. 6d. to 20s. per lb., but it seems doubtful if these figures are being obtained; some spot holders are accepting round about 12s. 6d. per lb. for 56-lb. lots and down to 11s. 6d. for two-cwt. contracts.

PARAFORMALDEHYDE is a slow market: quantities of 100 per cent. powder, in kegs, offering at 1s. 8d., and smaller parcels at 1s. 9d. per lb.

PHENACETIN.—This market is firm as quoted at 2s. 10d. per lb. for one-cwt. lots of crystals; powder, one penny more. Prices are likely to advance.

PHENAZONE is also a firm item as quoted on spot at 4s. to 4s. 6d. per lb. as to quantity; the market is inclined to harden.

PHENOLPHTHALEIN is at the Convention prices of 5s. 11d. to 6s. 1½d. per lb. as to quantity.

POTASSIUM PERMANGANATE (B.P.) remains quiet except for small business: quantities, in drums, 6d.; smaller parcels, 6½d. per lb.

POTASSIUM SULPHOGUAIACOLATE is dearer with the market still moving up: spot is now at 4s. to 4s. 3d. per lb.

SALICYLIC ACID (B.P.).—Home makers' prices continue to govern the market; quoted from 1s. 5d. to 1s. 7d. per lb.

SODIUM DIETHYLBARBITURATE is firmer, with spot at 7s. 9d. to 8s. per lb. and tending to go still higher.

SODIUM SALICYLATE (B.P.).—Home makers are holding the market: powder, 2s. 2d. for ten-cwt. lots up to 2s. 4d. for small parcels. Dealers quote: crystals, 2s. 6½d.; powder, 2s. 4½d. per lb. for cwt. lots.

SULPHONAL is unchanged at 10s. to 10s. 3d., with a limited business moving.

TANNIC ACID (B.P. *levis*) is quiet: quantities, 2s. 10d.; smaller lots, 3s. per lb.

TARTARIC ACID (B.P. crystals).—There has been a steady flow of business and prices are fully maintained on spot at 1s. 4d. to 1s. 4½d. per lb., less 5 per cent. for foreign.

VANILLIN.—The market is being cut rather badly: ex guaiacol is quoted round about 14s. 6d. per lb., but a good deal less is being taken for substantial quantities; ex clove oil, 17s. per lb.

Industrial Chemicals, etc.

London, June 19.

FAIR business is reported, with prices keeping generally steady. One or two alterations in values are recorded, the chief being slight reductions for carbonate of potash and formic acid.

ACETIC ACID is bright and prices are maintained: 80 per cent. technical, £36 15s.; 80 per cent. pure, £37 per ton, in barrels; glacial, pharmaceutical, 99 to 100 per cent., £66, in glass demijohns; glacial, in barrels, £56 per ton, ex store.

ACETONE.—There is business for all available supplies: B.G.S., £76 to £86 per ton, in drums, ex store, as to quantity.

AMMONIA (ANHYDROUS) has met with a demand for quantities, in loaned cylinders, at 10d. to 1s. per lb., carriage paid; slightly less for big contracts.

AMMONIUM CHLORIDE is a shade easier, with dealers offering grey galvanising at £21 5s. per ton, in oaks, ex store; slightly less for contracts.

ARSENIC.—The demand continues slow and the nearest quotation for white Cornish 99.9 per cent. is £16 per ton f.o.r. mines. Inquiries are only for small lots on either side of 10 tons. Mexican high-grade is quoted £16 10s. c.i.f. Liverpool.

BARIUM CHLORIDE is still firm on spot as quoted from £11 10s. per ton for 98 to 100 per cent. prime white crystals, in casks, ex store; f.o.b. Continent, £10 5s.

CADMIUM.—There has been some slowing in the demand lately, but business is fairly regular, although buyers are somewhat more cautious in placing orders at current rates. These have been maintained at 4s. to about 4s. 2d., according to quantity and delivery. A good quantity lately came in from Australia.

COBALT.—The official price for the metal stands at 10s. per lb., but business is negotiable at less for good contracts. Black oxide is quoted at 8s. and grey at 8s. 10d. per lb.

COPPER SULPHATE.—The market is extremely dull, as usual at this season, and even at the low rates reported to be mentioned by Continental makers there is no interest shown by export buyers. British makers still quote about £29 f.o.b. for casks, less 5 per cent., but this figure is entirely nominal. U.K. exports for last month were 3,014 tons, against 4,137 tons for May last year, and the total for the five months is 30,532 tons, compared with 30,333 tons for January-May last year.

FORMALDEHYDE is meeting with a fair business, but the quoted prices of £35 10s. to £36 per ton for quantities of 40 per cent. by volume are easy.

FORMIC ACID is a slow market and prices are easier, with 85 per cent. in the neighbourhood of £45 per ton, in carboys, ex store.

ISOPROPYL ALCOHOL.—Business is moving; reliable material, 11s. to 12s. per gallon, in drums, carriage paid.

OXALIC ACID.—Business has been better: quantities, £30 per ton; ex wharf; spot, 32s. per cwt., ex store.

POTASH PRODUCTS.—The most important change to note is a reduction in dealers' prices for carbonate; other items are unchanged: caustic, solid, 88 to 92 per cent., £32 15s. to £36 15s. per ton, in drums; c.i.f., 30s. per ton less; carbonate, 90 to 92 per cent., £24 7s. 6d. to £24 10s.; 96 to 98 per cent., £25 10s. per ton, in casks; chlorate remains dull; quantities to arrive, 2½d.; spot, from 3d. to 3½d., ex store; permanganate is slack; quantities, in two-cwt. drums, 5½d.; yellow prussiate, in quantities, £63 10s. to £65 10s.; single casks, 7d.; small parcels, 7½d. per lb., ex store.

SODIUM ACETATE is firm, with supplies limited; spot £21 10s. per ton, in casks, ex store.

SODIUM CHLORATE remains slack; quantities to arrive, 2½d.; spot, from 3d. per lb., ex store.

SODIUM HYPOSULPHITE.—Dealers are quoting pea crystals, in one-cwt. kegs, at £15 to £15 2s. 6d.; commercial quality, £9 10s., in casks, ex store. British makers' price for pure crystals to home consumers on contract, £15 per ton, carriage paid to buyer's station.

SULPHUR.—The demand for American crude was only moderate and prices remained at £5 12s. 6d. to £5 17s. 6d. per ton. Sicilian flowers are quoted at £12 7s. 6d., refined ground £11, and roll £9 15s., all c.i.f. to arrive.

ZINC OXIDE.—British makes are as follows: B.P., £45, white seal, £42; red seal, £41 per ton, carriage paid.

COAL-TAR PRODUCTS, ETC.—A further advance in the quotation for pitch is recorded, otherwise the market is unchanged and remains rather quiet. **BETANAPHTHOL** is quoted at 10d. per lb., carriage paid for quantities. **CARBOLIC ACID CRYSTALS** continue in good demand at 6½d. per lb., carriage paid or f.o.b., in drums, with over-casks, for minimum five-ton lots; crude 60's, 1s. 11d. per gallon, naked at works. **METHYL ALCOHOL** continues unsettled, with prices unchanged at about £45 per ton, in drums, ex store. **PYRIDINE** remains nominal at 3s. 9d. to 4s. 3d. per gallon, f.o.b. **TOLUOL** is in fair demand: commercial 90's, 1s. 9d.; pure, 1s. 11d. per gallon at works. **PITCH** is again at higher figures on quotation, with the market at 35s. per ton, f.o.b. East Coast.

Fixed Oils, etc.

SEVERAL items, including castor, coconut and soya oils, are easier. Palm oils show a further slight advance, but close quiet. Linseed oil is level on the week, with American turpentine closing irregular. **CASTOR.**—Market is slightly easier, closing steady: pharmaceutical, 49s.; first pressings, 44s.; second pressings, 41s. 6d. spot. **COCONUT.**—Market is dull and much easier: deodorised, spot, 35s. 6d.; Ceylon, 33s. 6d. c.i.f.; Cochin, 41s. 6d. c.i.f. **GROUNDNUT.**—Market is steadier at the lower prices now quoted: deodorised, spot, 41s.; crude Oriental, 35s. c.i.f. **PALM KERNEL.**—Market is dull: deodorised, 44s.; crude, 33s. 6d. spot. **PALM.**—A further slight advance in prices is recorded, but the market is now rather quiet: Lagos, 32s. 3d.; softs, 31s. 3d.; mediums, 32s. 3d.; hards, 33s.; bleached, 34s. spot. **RAPE.**—Market is quiet: refined, 45s. 3d.; crude, 43s. 3d. spot. **SOYA.**—Market is dull and much easier: deodorised, 37s. 3d.; crude, 32s. 9d. spot. **LINSEED** (raw, naked).—The market is about unchanged on the week and is fairly steady but quiet: on spot, 29s. 3d.; June, 28s.; July-August, 28s.; September-December, 28s. 1½d.; January-April, 28s. 6d. Boiled oil, spot, 32s. 9d. Hull, on spot, 29s. 6d.; June, 28s. 10½d.; July-August, 28s. 10½d.; September-December, 28s. 7½d. **TURPENTINE.**—The undertone has been very steady, although prices eased slightly since the close of last week. The market closes irregular at 44s. 6d. per cwt. on spot; June is quoted 43s. 6d., and July-December 42s. 3d. London deliveries for last week were very good at 2,250 barrels making a total since January 1 of 45,970 barrels, when compared with 50,940 barrels for the same period last year. Stocks were returned at 10,559 barrels, which, together with a steamer afloat with 5,830 barrels, makes the London visible supply 16,389 barrels, against 24,433 barrels the correspond-

ing figure for last year. American stocks are said to be less than a year ago. **RESIN.**—The tone continues steady, and c.i.f. terms for shipment from America were as follows: B/D 17s. 1½d. to 17s. 3d., E 17s. 4½d., F/I 17s. 7½d., K/N 17s. 9d., W/G 19s. 1½d., and W/W 20s. 4½d. There has been a further reduction in French grades on freer offerings, and the quotation for F/G stands at 18s. 4½d. c.i.f. London for prompt shipment. **WOOD.**—Hankow, in barrels, on spot is dull: quoted at 72s.

LUBRICATING, MINERAL, BURNING OILS, ETC.—A steady tone is reported in all directions and business is fairly good. **BENZOL** continues active; standard motor 90's, 1s. 8½d. to 1s. 8½d. per gallon, ex works, in tank wagons; ex London works, 2d. per gallon dearer. **PARAFFIN OILS** are unchanged but firm; American standard white, 1s.; water-white, 1s. 1d. per gallon, in barrels, ex wharf. **PARAFFIN WAX AND SCALE** are unchanged; wax is quoted at 2½d. to 4½d. per lb., according to melting point, in bags; scale for shipment is offered at about £17 10s. per ton, c.i.f. London. **WHITE OILS** have been in fair demand; special No. 1, £23 7s. 6d.; No. 1, £23; No. 3 half-white, £20 10s.; No. 4 half-white, £19 15s. per ton, drums and barrels free, ex wharf. **SOLVENT NAPHTHAS** continue at unchanged prices for 90/160 at 1s. 2d. per gallon, naked at works; heavy 90/190 remain quiet at 1s. per gallon. **PETROLEUM JELLIES** continue quiet: white to snow white £35 10s. to £47 10s.; amber and yellow, £17 15s. to £22; dark stiff green, £11 12s. 6d. per ton, barrels free, ex wharf. **LUBRICATING OILS** are active and firm. Spot: pales, £13 7s. 6d. to £33 10s.; reds, £11 10s. to £33; dark cylinders, £14 12s. 6d. to £39; filtered cylinders, £23 5s. to £42, as to quantity, per ton, less 2½ per cent. **SOLUBLE OIL AND CUTTING COMPOUNDS** remain unchanged at £20 to £23 per ton. No. 1 **RUSSIAN OIL** or spot is offering at £14 per ton, less 2½ per cent., barrels free, ex wharf.

Ceylon Citronella Oil

AN annual report on the local market for Ceylon citronella oil during 1928 states that prices remained very steady at about 80-84 cents according to quality, until March, when a shortage of supplies, mainly due to a prolonged drought, caused the market to rise. At the beginning of June prices had reached Rs. 1.22 to Rs. 1.26 per lb., but fell away to 81-85 cents by the beginning of July, when there was a recovery to 89-93 cents. Prices were fairly steady during the last half of the year and the market eventually closed at 91-95 cents. The total exports for the year amounted to 1,171,073 lb. against 1,371,844 lb. in 1927. Shipments to the United Kingdom show an increase over those of last year, but the U.S.A. figure shows a heavy falling-off.

Countries	1927	1928
	lb.	lb.
United Kingdom	297,255	326,167
France	24,203	15,737
Germany	129,630	133,537
Holland	67,579	55,120
Italy	12,057	17,737
Australia and New Zealand	71,314	81,842
U.S.A.	603,420	421,974
Canada	15,583	6,758
Other Countries in America	28,265	14,225
India	46,373	42,014
China	37,267	20,188
Other Countries	38,898	33,174

N.Z. Kauri Gum

AN inspection has been made by the members of the Government's gum-cleaning plant at Penrose by the Kauri Gum Control Board. Considerable progress has been made in the installation of the new plant, and it is expected it will be ready for operation within a month. It was decided by the Control Board that the gum stored at the Government depot at Mangawai should be removed to Auckland in view of the expense of caring for it in the country. Reports were received by the Board that in addition to satisfactory sales of gum sent to the Board by producers on consignment, several large parcels of Government stocks of gum had been disposed of recently at satisfactory prices. Three applications for upliftment of areas within kauri gum reserves were referred to the Board by the Lands Department. After the localities had been inspected it was decided to offer no objection to the granting of the applications. The Customs Department reported that 225 tons of gum, of a total value of £11,935, was exported in February. Of this, 114 tons, valued at £5,784, was sent to the United Kingdom, 57 tons, valued at £4,244, to the United States, 41 tons, valued at £1,338, to France, nine tons, valued at £444, to Germany, and five tons, valued at £175, to Australia.



Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

Concerted Action

SIR,—The following letter has been forwarded to Messrs. Maclean, Ltd., Park Royal, N.W.10:—

"We, the undersigned, regard with surprise and indignation your action in supplying Maclean's Peroxide Tooth Paste to a certain sixpenny bazaar. It is the chemist who has been entirely responsible, by his personal recommendation and sales efforts, for the popularity of this line, and we view your step as being reprehensible in the extreme. We cannot, and will not, deal with a firm of such principle, and hereby declare our intention of refusing to stock or sell any of your lines whatsoever. We shall esteem it a favour if you instruct your representative not to call on us in future. We are bringing this matter to the notice of our local Association."

This letter bears twenty-six signatures; so far only one man has refused to sign. The greater part of Brighton has yet to be approached, and a further crop of signatures will follow in a few days.—Yours, etc.,

F. A. THOMAS.

Hove.

Pharmacy Week

SIR,—“What is Pharmacy Week?” How many chemists will be qualified to answer this question? Only those who grasp the spirit behind the publicity of this particular week and the advertising, not of the chemists' business, but of his profession. At present the general public are inclined to regard him as an obliging shopkeeper with an encyclopædic knowledge. Let the chemist take stock of himself and his own relation to his business—as this is, so will his business be. The six suggested window displays supplied by the Retail Pharmacists' Union through the courtesy of the organisers of the Chemists' Exhibition are intended to be part of the publicity of Pharmacy week. Many of those who came to view them failed to get the idea underlying the displays. The question was frequently asked: “What will it sell?” The answer is that Pharmacy week is not a shopping week; the windows are not necessarily intended to sell anything, but to be part of a cumulative effort to educate the public as to the details of the windows, I should like to make the following remarks:—

Window 1.—The suggestion is capital, but the hurried trimming of the window has given a muddled effect. To make this window effective the following hints may be considered by those using the idea:—(a) Keep the finished products together on one or more stands, not dotted all over the window. (b) Have a few pills on the pill machine, a few complete and open cachets with the cachet machine, and so on. (c) The small cards should contain a brief description on the use of the particular piece of apparatus, not merely the name. (d) More of the tools of the trade might be shown. (e) For those willing to go to a little trouble, a strip of the full length of the window would carry conviction—e.g., “Some of the Apparatus of a well-equipped laboratory. Ours is well equipped.”

Window 3.—A more striking map of the world would be more effective, and the guiding lines should be fixed to the parts of the map from which the products come. The small cards require more detail. If the nearest school is approached for the loan of a map for the purpose and the window is well done, a permanent audience of children and their parents is assured.

Window 4.—The display lacked the goods required for the horticultural department, but the idea was there. Cards with the uses as well as the names of the chemicals and drugs would be of great advantage.

Window 5.—It is essential that the showcards be on the eye level. Brief notes of uses and modes of preparation, where possible, would add to the interest. If there is space, some of the crude drugs from which the preparations are manufactured should be shown.

Window 6.—If the drugs are displayed on pillars (as in the window shown), it would be a good addition to have names of chemists of the past written on them. The cards

containing the names of the drugs and chemicals should contain details of uses, origin, and even preparations. (See also foregoing paragraph.)

Pharmacy is an art, and as a trained craftsman the pharmacist must look upon it as such. He is not a slave to the medical man: the profession of pharmacy can hold its own if the pharmacists will it. No amount of window dressing can bring back the standing of the craft, but only the craftsmen themselves.—I am, etc.,

CAMERA LUCIDA (19/6).

Dublin Pharmacies

SIR,—The illustrations and description of the pharmacies in Dublin (*C. & D.*, June 8, p. 682) show that the styles vary from the most modern of shopfronts to the very old style, which the younger generation mostly only know of by hearsay. The illustration of Price's Medical Hall shows a front which is so severe that the sole contents of the window are four specie jars; one can hardly imagine any customer venturesome enough to enter such a pharmacy and to ask for a patent medicine. There must be very few pharmacies remaining in the British Isles which can afford to adhere to so truly pharmaceutical a window display. Another thing one notes is the use of the term “Medical Hall” as a description of several of the establishments, a style of nomenclature possibly due to the combination of medical and pharmaceutical practice, or the old apothecary's business. In a British dependency with which I have been familiar the title almost universally adopted is “Dispensary,” and for the same reason, for although the local law specifically states that a doctor shall have no monetary interest in a pharmacy, in practice the doctor has his consulting room on the premises, and prescribes medicines to be obtained in the pharmacy attached, and it would seem incredible to suppose that he did not derive some pecuniary benefit therefrom. In England we seem to pass through periods of different titles. In France the title “*pharmacie*” is universally used, although it is added to by various further descriptions, such as “*pharmacie nationale*,” or even “*internationale*,” “*pharmacie normale*,” “*pharmacie principale*.”—Yours faithfully,

TITULAR (13/6).

Lax Management

SIR,—I saw in your issue of June 15 that the Pharmaceutical Society have very properly prosecuted a young man for exhibiting a false certificate. It has occurred to me that the same punishment should be meted out to those hundreds of chemists who, at this time of year especially, go away for holidays or some other purpose and leave their shops in charge of an unqualified man. I, as a qualified manager, have had six jobs, because chemists had been fined for keeping an unqualified man at a branch. Prison for this offence would lessen unemployment.—Yours, etc.,

CAERODOR (17/6).

Settling in Business

SIR,—Under the heading of “Wills” in the *C. & D.* we are able to pick up something of interest occasionally, and may be inclined to ruminate on the value of pharmacy as a business. Such details do not, of course, disclose all the facts; but if we put the average earning capacity of a qualified man at from £5 to £10 a week (the latter being for the proprietor, presuming his business to be worth £500 a year net), the same parties, dead, are worth perhaps £500 and £5,000 respectively. I would not like to be positive, but many reports of estates, etc., do not get far above the latter figure. A man contemplating a business of his own should map out a line, hitch his wagon to a star, so to say, and stick to it. It is impossible to put old heads on young shoulders, otherwise my advice would be to gather some varied experience in private pharmacies and stores and keep oneself free of matrimonial entanglements while doing so—as to which, there may be circumstances that alter the case. A man of varied attainments is thrown away in company service, where an employee is either qualified or not; and just as all cats are supposed to be grey in the dark, so in the stores one M.P.S. is as good as another M.P.S. It is

true that some salaries are earned with the big companies which, with commission added, amount to more than average net results in the small pharmacy. One may say also that service as above is not quite, from what one hears, so easy a matter as it was wont to be—or supposed to be. Not only that, but, as in all other occupations, the younger generation are pressing at the gates and the older men must not be surprised if they get pushed out. Therefore, it comes to be the fact that the man of ripe experience is of most value in his own shop, and he can, moreover, stick to his counter as long as health allows him to do so. It may be said that the "stores" manager gets a pension: as to this we know little that is precise, but at best it will not often exceed £2 a week. From what one hears from people in a position to know (in drug and other concerns) the executive contrive to get a very close idea as to a man's condition, earning capacity of family, if any, and also his investments. All things considered, the man in business "on his own" must be the better off—and, incidentally, a sizeable family of boys and girls is often a decided help. In one respect I differ from "Fifty Odd" (*C. & D.*, June 8, p. 714). There is in my experience plenty of money about, and plenty spent; also there are openings here and there in most big cities and towns.—Yours, etc.,

FIFTY-FIFTY (17/6).

Repetitive Work

SIR,—When a worker is engaged in repetitive work, where the same motions are gone through over and over again, a certain amount of skill and quickness is acquired whereby the work is turned out at the most rapid rate possible in conformity with accuracy; and when the worker has gained a definite maximum speed the work becomes mechanical and is carried on while possibly the mind is far away from what the hands are doing. I do not know whether manufacturing processes are carried on now under the system of piece-work; but years ago when I was connected with a factory certain jobs were paid by the piece, and there the workers got a change of occupation occasionally; that was when they became so proficient at one particular job that they earned over a certain amount. It seems a foolish procedure, judged by the modern standards of some of the world's most successful employers. But although the workers are fully occupied during the time they are at work it cannot be such a soul-destroying job as shopkeeping, especially in a chemist's shop where the day is never really done and there are seven days in a week. And as to repetition, what can be more monotonous than trotting out the same old arguments to customer after customer on the merits of a tooth-brush or shaving soap, arguments which, however convincing they may have appeared to one at first, and however convincing one may have to make them seem to the customer, by dint of constant repetition sound so hackneyed to one's own ears that it seems almost foolish to use them again.—Yours truly,

REPETANDUM (18/6).

An Important Concession

SIR,—The concession granted by the Board of Customs and Excise allowing proprietary medicines to be dispensed without a patent-medicine stamp when prescribed (*C. & D.*, June 15, p. 718) is a very useful one, and one which should benefit the pockets of the public as well as relieving chemists of a minor difficulty; and it should also have a beneficial effect on the solvency of the drug fund. There is also another way in which it should save chemists trouble, and that is in breaking bulk. Another, although perhaps minor, point is that the patient will not know that it is a proprietary. Although the public has to a great extent a blind faith in advertised products, there are still many people who prefer to be prescribed for individually; and the presence of a patent-medicine stamp on a bottle or box supposed to be made up to prescription was sufficient to indicate to them that the doctor had only ordered a proprietary article and was likely to impair their belief in his powers of diagnosis.—Yours, etc.,

TIMBRE (17/6).

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for, and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

A. F. (13/58).—QUASSIA SPRAY.—See *C. & D.*, February 2, p. 137.

Lebal (23/58).—FIXING GLASS LABELS ON DRAWERS.—A saturated solution of shellac in spirit is used for this purpose.

J. R. S. (7/78).—DOG CONDITION POWDER.—This is a pure white, ashless powder which appears to consist of sugar of milk only, but probably is a homeopathic trituration. A probable medicine would be a homeopathic dose of arsenic. It did not respond to tests for calomel, another likely remedy.

W. G. (7/68).—CURRENT RECTIFIER.—These crystals consist of commercial sodium acid phosphate.

E. C. (10/85).—CLEANING POWDER.—This is composed of approximately equal parts of prepared chalk and an earth of the kaolin type; it contains no kieselsuhr.

F. S. B. (6/68).—CLEANING PONDS OF ALGÆ.—Copper sulphate in the proportion of one in a million is used for this purpose and is said not to be injurious to fish. The method of using is to place the amount (in large crystals) in a canvas bag and drag this through the water until the salt has dissolved.

Legal Queries

M. W. (19/4).—The inclusion of the word "balsam" in the title is, in the case of your preparation, one of the grounds for liability to medicine-stamp duty. The other is the statement "prepared only by," which is an ostensible claim to a proprietary right in the article, and consequently also renders it liable to medicine-stamp duty.

Wales (14/86) is the tenant of premises which come within the provisions of the Rent Restriction Acts. Although he has allowed the rent to be increased beyond the statutory limit, and has assumed the obligation to pay the rates, the landlord has failed to do necessary repairs, which he promised to do. "Wales" has complained to the local sanitary inspector about the condition of the property, and the inspector has written to the landlord, specifying what repairs he requires to be done. Is "Wales" entitled to withhold payment of the next quarter's rent and to refuse to pay the rates? [If the inspector has given a certificate stating that the premises are not in a reasonable state of repair, "Wales" may refuse to pay that part of the increase of rent which is based upon the landlord's obligation to do repairs until such time as the repairs are done to the inspector's satisfaction. In any case, "Wales" can refuse to pay the amount by which the rent demanded exceeds the rent which the landlord is legally entitled to charge, and can recover any excess above the legal rent that he has paid in the past. "Wales" cannot, however, refuse to pay the rates.]

Retrospect of Fifty Years Ago

Reprinted from
The "Chemist and Druggist," June 14, 1879

Pharmaceutical Society of Ireland

The above Society held what is intended to be its first annual dinner on Wednesday, June 4, at the Grosvenor Hotel, Dublin. There was a good attendance, including members from Cork, Belfast, Newry, Kingstown, Bray, etc. The chair was occupied by Dr. Tichborne, the president. The vice-chair was filled by Mr. J. G. Boileau. After the usual loyal toasts the president, on proposing "Success to the Pharmaceutical Society of Ireland," went into a short survey of what had been done since its commencement, and paid a high tribute to the assistance given by Sir Dominic Corrigan in the formation of the Society; and he congratulated the members on its satisfactory position financially and otherwise, and spoke of the good feeling existing towards it by the medical profession.



[Commenced C. & D., July 5, 1924]

Relativity.—An adequate idea of Einstein's theory of relativity, evolved by him in successive stages, can only be given with the aid of mathematical formulæ: all that is attempted in this paragraph is an introduction to the study of the subject. We may take first an illustration used by Einstein himself. An observer standing by the side of a railway line can arrange mirrors in such a way that two flashes of lightning (or of light generated by apparatus), one on each side of him, are perceived simultaneously. Let it be supposed, however, that a train is running at a very high speed along the line, and that an observer in the train is registering the appearance of the same two flashes of lightning. These flashes, in whichever direction the train is running, will not be simultaneous for the second observer. Thus we find that simultaneity can be relative. From this elementary example an advance may be made to the conception that the distance between any two points on a rigid rod is the distance between these two points when they are occupied simultaneously: the distance is thus to be regarded as relative, and as having a definite meaning only if the body of reference (co-ordinate system) is specified. Length thus becomes a relative conception, and the expression "actual length" is meaningless. Theories of light and of gravitation play an important part in the exposition of relativity. The introductory sketch of the subject by H. L. Brose (published by Blackwell), gives a good account of it in a brief compass: the translation of Einstein's own exposition, by R. W. Lawson (published by Methuen), may also be recommended.

Remedy.—(1) In medicine, "a cure for a disease or disorder . . .; any medicine or treatment which alleviates pain and promotes restoration to health." The earliest O.E.D. quotation is dated before the year 1225. (2) In coinage, the permissible margin of error in fineness or weight.

Rent.—The sum paid a tenant of land or other property for the use of it during the period of the tenancy. A peppercorn rent is the term used to describe a purely nominal rent which bears no relation to the true annual value of the property, and is merely charged in order to establish evidence of the relationship of landlord and tenant.

Rent Restriction Acts.—As their name implies, the Rent and Mortgage Interest Restrictions Acts, 1920 and 1923, were passed with the object of preventing landlords from taking advantage of the post-war shortage of houses to charge unreasonable rents and in order to limit the rate of interest upon mortgages to be charged by mortgagees. They also afford to tenants security of tenure, and control the right of a mortgagee to call in a mortgage. The Acts apply only to houses or parts of houses let as separate dwelling-houses, where either the annual amount of the standard rent or the rateable value does not exceed £105 in London, £90 in Scotland and £75 elsewhere. Premises are not excluded from the Acts merely because they are used, partly, as a shop or for business purposes as well as for residence. The standard rent is defined as the rent at which the premises were let on August 3, 1914, or, if they were not let on that date, the rent at which they were last let before, or first let after that date. Premises that have become vacant since July 31, 1923, are "de-controlled," as it is called, that is to say, the Acts do not apply to them. A landlord of a house to which the Acts apply is debarred from increasing the standard rent, as defined above, beyond the following limits:—(a) If he has spent money on improvements—other than decorative repairs—or structural alterations, he may charge an amount

equivalent to a maximum of 8 per cent. on his outlay; (b) he may, if he pays the rates, add to the rent an amount corresponding with that by which the current rates exceed those charged in August 1914; (c) he may increase the standard rent by 15 per cent.; and (d) if he is responsible for the whole of the repairs to the property he may increase the rent by a further 25 per cent., or proportionately less if he is liable to do only part of the repairs. Where part of a house to which the Acts apply has been sublet, the rent of the part so sublet may be further increased by an amount not exceeding 10 per cent. of the net rent, and the rent of the house may be increased by the equivalent of 5 per cent. of the net rent of the part sublet. If from a cause other than the tenant's own neglect or default, the premises are in an unreasonable state of repair and the tenant is able to obtain a certificate from the local sanitary authority to that effect, he will be excused from paying the amount of any increase of rent falling under the headings (c) and (d) above, so long as the premises continue in that condition. Before any permitted increase of rent can take effect, the existing tenancy must have terminated and the tenant must have been given notice of the increase in the form prescribed by the Acts. No tenant of premises to which the Acts apply can be evicted by a landlord unless the landlord obtains from the County Court an order or judgment giving him possession. The principal grounds upon which possession will be given to the landlord are the following:—(a) The tenant is in arrears with his rent or has disregarded the conditions of the tenancy; (b) the tenant is a nuisance to adjoining occupiers, has used the premises for an illegal purpose, or has allowed the condition of the premises to deteriorate abnormally; (c) the tenant has given notice to quit, upon which the landlord has taken steps to sell or re-let the premises; (d) the premises are reasonably required by the landlord for occupation as a residence for himself, or for a son or daughter of his over eighteen years of age, or for a person residing with him, or for someone in his full-time employ provided that alternative accommodation is available for the tenant which will be reasonably suitable to his means and needs and provide him equal security of tenure; (e) the landlord bought the premises after war service, requires the premises for his own occupation, and offers the tenant accommodation in the same house upon reasonable terms; (f) the house is required for occupation by a former tenant who gave up possession in order to serve in the Forces during the war; or (g) the tenant has, without the consent of the landlord, assigned or sublet the whole of the premises. Where possession is claimed by the landlord under heading (d) above, the existence of suitable alternative accommodation will not be made a condition in the following cases:—(i) Where the tenant was in the employment of the landlord, and the premises were let to him in consequence of that employment, which has since ceased; (ii) where the landlord gave up possession to serve in the Forces during the war; (iii) where the landlord, or the husband or wife of the landlord, acquired the premises before June 20, 1922, and reasonably requires them for personal occupation, or for a son or daughter above the age of eighteen; or (iv) if the premises were acquired after that date, if the Court considers that greater hardship would result from refusing the order for possession than from granting it. It is made an offence for a landlord to require a tenant to pay a premium or an excessive sum as the price of furniture as a condition for renewing a tenancy of premises to which the Acts apply, and sums so paid are recoverable by the tenant. Generally speaking, the Acts do not apply to premises that are let furnished; but it is made illegal to charge for furnished rooms a rent that yields to the landlord a profit more than 25 per cent. in excess of the profit he might reasonably have expected from a similar letting immediately before the war, and it is an offence, punishable by fine, to charge an extortionate amount for the use of furnished rooms.

Renunciation Letters.—Forms supplied to allottees of a new issue of stock or shares by which they can transfer their allotments or "rights" on signature across a six-penny stamp.

Repeat Prescriptions.—There is no law on the question of repeat prescriptions. Until the Dangerous Drugs Act,

The C.&D. Commercial Compendium

1920, its Regulations and the amending Acts based on the Geneva Convention of the League of Nations, it was considered that a prescription was the property of the person to whom it was given. That right (if it was one) was first taken away under the National Health Insurance Act, 1911, possibly on the basis of a contract service. Under the Regulations of the Dangerous Drugs Acts, 1920-25, the claim is specifically abrogated for prescriptions on which are prescribed drugs or preparations coming within the purview of the Regulations. Though many consider it inadvisable to repeat a prescription containing drugs of the cumulative type, there is no law on the subject, and the chemist is entitled to repeat any prescription if he thinks fit. In many places, however, it is considered advisable with cumulative drugs to exercise caution; and the only advice that can at present be given on new synthetic drugs is that chemists should practise common sense in cases that arise, so as to obviate accidental poisoning. The education and training of the vendor has been hitherto considered sufficient to prevent mishap, but a considerable body of opinion has arisen in favour of the view that certain cumulative drugs and chemicals should not be repeated save under medical order.

Repoussé Lettering.—This is a style of ornamental metal work formed in relief by hammering up the metal from the back, and chasing the forms so produced. It provides an attractive and very suitable finish for the stall-plate below the chemist's window, or for pilaster tablets, finger plates on the door, hanging signs, and so on. Blends well with a mahogany or bronze-metal shop-front, and lends a professional air to the exterior of the chemist's establishment. A sign of this description also gives a distinctive finish to the top of the dispensing screen.

Resin (Commerce).—Resin, also mis-called "rosin," is the residue left after the distillation of oil of turpentine from the crude oleo-resin (crude turpentine) of various species of *Pinus*. The two products are very important materials of industry. Pine timber is freely utilised for various purposes, but the main commercial value of pine trees is now derived from the extraction of the gum. While the use of turpentine plays an important part in the manufacture of paints and varnishes, also as an essential ingredient for polishes used by cabinet and furniture manufacturers, as well as a solvent in numerous industries, resin finds a wide outlet for the manufacture of soap, linoleum, varnish, etc. The grading of resin is defined on a very elaborate scale or classified in such way as to facilitate its marketing for the many uses for which it is intended. The lower to medium grades range more or less in alphabetical order from A to D, E, F/G, etc., and the finer or pale grades comprise W.G. and W.W. Prices are usually given in shillings per cwt., either c.i.f. for shipment or delivered ex wharf. Resin is mostly produced in the south-east of the United States (including Georgia and Florida), and also in France, Spain, Portugal, Sweden, Greece and India. Outside of the United States, France and Spain are the next largest producers of resin. Very large quantities of both turpentine and resin are consumed in America, but a substantial exportable surplus finds its way to the world's markets, particularly this country and the Continent. U.K. imports of resin in 1927 were especially heavy, amounting to 1,552,566 cwt., against 1,382,315 cwt. for 1926; and last year's figures were 1,402,828 cwt. The proportion used in this country in 1927 represented well over 300,000 barrels of 500 lb. each. Resin is stored in warehouses in London, Liverpool, Manchester, and in other ports on the East Coast, whence supplies are distributed to consumers all over the country. Fairly large quantities of wood resin are also produced apart from gum resin, which is the genuine article. The total American exports of gum resin in 1928 were 1,023,104 barrels, a decrease of about 25 per cent. against the previous year; and exports of wood resin were 151,936 barrels, a slight decrease on the year. The imports by this country from America in 1928 were 222,333 barrels of gum and 32,389 barrels of wood resin. (See also Colophony.)

The following tables show the imports into the United Kingdom for the past five years:—

Imports					
From	1923	1924	1925	1926	1927
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Sweden ..	15,745	17,371	17,771	31,639	38,229
Germany ..	907	3,420	9,341	21,519	21,284
Netherlands ..	12,839	39	2,153	8,071	9,762
Belgium ..	12,590	11,922	14,757	6,130	3,209
France ..	100,940	45,628	186,929	241,780	188,208
Portugal ..	63,769	89,685	79,900	90,985	84,796
Spain ..	50,322	61,904	132,639	134,483	88,162
Greece ..	6,628	1,271	4,904	9,456	6,107
United States	1,137,604	1,335,398	1,015,480	814,583	1,088,887
Other foreign countries ..	3,684	11,975	21,416	12,490	14,538
Total ..	1,395,028	1,578,613	1,485,290	1,371,136	1,543,182
Value ..£	918,257	1,099,623	1,515,272	1,816,624	1,665,443
India ..	15,181	12,474	16,435	9,582	9,022
Other British countries ..	2	1,022	5,085	1,597	362
Total ..	15,183	13,496	21,520	11,179	9,384
Value ..£	9,323	11,356	24,092	16,265	10,762
Total ..	1,410,211	1,592,109	1,506,810	1,382,315	1,552,566
Value ..£	927,580	1,110,979	1,539,364	1,832,889	1,676,205

Re-exports					
To	1923	1924	1925	1926	1927
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Russia ..	11,830	22,551	33,791	28,400	3,409
Poland ..	768	1,812	4,283	3,322	796
Germany ..	5,373	726	164	204	902
Java ..	—	—	3,496	2,372	6,950
Belgium ..	2	1,008	215	3,928	1,310
Other foreign countries ..	4,002	7,476	4,295	8,256	6,472
Total to foreign countries ..	21,975	33,573	46,244	46,482	19,839
Value ..£	14,949	24,669	52,472	69,010	27,937
Irish Free State	2,076	6,142	4,828	3,966	4,385
South Africa	2,883	2,554	3,228	6,891	3,628
India ..	2,012	777	966	1,052	3,943
Australia ..	2,554	8,436	3,869	6,611	15,374
New Zealand ..	155	724	1,060	34	658
Canada ..	762	328	632	124	907
Other British countries ..	4,250	1889	1,678	1,225	1,095
Total to British countries ..	14,692	20,850	16,261	19,903	29,990
Value ..£	10,576	15,682	16,384	27,570	41,235
Total ..	36,667	54,423	62,505	66,385	49,829
Value ..£	25,525	40,351	68,856	96,580	69,172

Resin Spirit consists of the lighter and more volatile oily portion of the product of the dry distillation of resin. On separation from the acetous aqueous liquid which distills with it, it is purified by agitation with sulphuric acid and sodium hydroxide and then redistilled. The resultant product is a water-white liquid, insoluble either in alcohol or in water, but soluble in all proportions with ether, petroleum and turpentine oil. The specific gravity varies between 0.856 and 0.883, and the odour is very peculiar. The composition of resin spirit is highly complex. According to Renard the hydrocarbons of resin spirit include pentane, pentene and their homologues, toluene and its homologues, tetra- and hexahydrotoluene and their homologues, terpenes and others. About half of resin spirit consists of hydrocarbons, boiling below 120°. A characteristic constituent of the lighter fractions of resin spirit is the hydrocarbon heptene, C_7H_{14} . It boils at 103° to 104° and has a specific gravity of 0.8031 at 20°. It is water-white, mobile and soluble in alcohol and ether. It is polymerised by treating with concentrated sulphuric acid, forming a di-heptene, $C_{14}H_{28}$, boiling at 235-250°. By the combined action of air and water it is converted into a crystalline heptene glycol. The crystals, when warmed with an acid, give a series of colorations. Resin spirit itself does not respond to this reaction distinctly.

A Link with the 'sixties



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A Customer writes:—"Re Aspirin Tablets. Your sample was one of the best we have ever had, we anticipate doing good business with you if you can maintain that quality."—We CAN, AND MEAN TO!!

LET US QUOTE YOU.

CASTLE HUSKISSON, LTD.

Manufacturing Chemists,

Swinton Works, Moon St., Islington, N.1

ESTAB. 1768.

Private formulæ Pills and Tablets carefully and accurately prepared at lowest possible prices.

Pills

GLYCERINE

B.P., White Industrial, and
Pale Straw Qualities.

A. ELDER REED & CO. Ltd.

Peninsular House, Monument Street, London, E.C.3.

Tel Nos.: Royal 3282 & 7000. Tel. Add.: "Eldereed, Bilgate, London."

RIPPIN

FOR

BENJAMIN

CALL AND INSPECT OUR SAMPLES.

Phone: ROYAL 2165.

A.J. RIPPIN, Ltd., 17 Harp Lane, E.C.3

SOLAZZI

The Chemist's Brand
LIQUORICE JUICE

**SOLAZZI JUICE IS GUARANTEED
TO CONSIST ENTIRELY OF THE
CONDENSED EXTRACT OF FINEST
CALABRIAN LICORICE ROOT
WITHOUT ANY ADMIXTURE WHATEVER**

Should any enquiry as to the composition of SOLAZZI be received from the public, Chemists are asked to emphasise the fact that SOLAZZI is not included in the category of Secret Remedies, and that the accompanying guarantee obtains with every parcel.

CRUDE DRUGS SPICES ESSENTIAL OILS

Peppermint
Sassafras
Spearment
Orange
Lemon
Cumin
Dill
Nutmeg
Caraway
Juniper
Wormseed
Cedar Wood
Oils and
Chaulmoogra
Oil, Etc.

Speciality:

American Botanical Drugs

Cascarilla
Euonymus
Hydrastis
Wild Cherry
Grindelia
Senega
Jalap
Lobelia
Hemlock
Cascara
Curacao Aloes
Scammony
Podophyllum
and
Kamala, Etc.

AGENCIES:

PEDER DEVOLD OIL COMPANY, AALESUND.
"ORANJE," AMSTERDAM. GOULD WITCH HAZEL CO., BOSTON.
W. KRUG & CO., AMSTERDAM. M. SALAMONE, TURIN.
EXCHANGE ORANGE AND LEMON PRODUCTS CO., CALIFORNIA.

WHEELER & HUISKING, LTD.
26 GREAT TOWER STREET, LONDON, E.C.3

Ampoule Files



THE GREATEST PRODUCTION IN THE WORLD
THE BEST. THE CHEAPEST.

Prices and Samples sent on application to
SIM Ltd., Morges, Switzerland.

Ephedra Vulgaris Tamarinds, E.I. Kamala Powder (6/8% ash)

Costus root
Podophyllum root
and other Indian Botanicals

S. N. De, M.Sc. (Botany)
Post Box 7851, Calcutta.

Cables: "Podophyllum," Calcutta.
Codes: A B C, 6th Edition and Bentley's.

"Thilocologne"

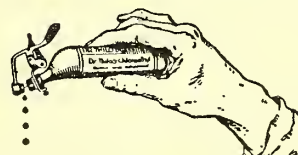
"DR. THILO" (Name registered)

Ethyl Chloride Cum Eau de Cologne

Has Caught On.



Observe Thilo's New
Syphon Bottle.



Absolute Chemical Purity.
Competitive Prices.

Observe Thilo's New Drop Nozzle for
General Anesthesia.

Now used extensively by
DENTISTS.

HOSPITALS. GENERAL PRACTITIONERS.

Ask for prices and free sample tube for demonstration.

W. BREDT, 41 Gt. Tower St., London, E.C.3
(Sole Concessionnaire for the U.K. and Ireland).

The ANGLO-FRENCH DRUG CO. Ltd.

Continuous and active propaganda is being conducted with the Medical Profession for

STANNOXYL

N.H.I. In addition to the original tubes of 80 tablets, packages containing 24 tablets, for the dispensing of N.H.I. prescriptions, are now available.

STANNOXYL (Brand) PRODUCTS

	Retail	Wholesale
TABLETS (tubes of 80)	3/- each	28/- per dozen
" (N.H.I. packages of 24)..	—	9/- "
LIQUID (bottle of 3 oz.)	4/- "	36/- "
GLYCERINE (bottle of 2 oz.)..	4/- "	36/- "
OINTMENT (tube)	3/- "	28/- "
AMPOULES (box of 8)	5/-	45/- "

Concise List of Products and new Price List on request.

238a GRAY'S INN ROAD, LONDON, W.C.1

Telephone: MUSEUM 4029.

Telegrams: AMPALVAS, LONDON.



RADIO-ACTIVE MUD

is being Recommended by the
MEDICAL PROFESSION
for the Cure and Treatment of

Rheumatism, Arthritis, Sciatica, &c.

WE ARE CONTINUALLY ASKED TO GIVE NAMES
OF LOCAL STOCKISTS.

Send for
Full
Particulars
and
BEST
TERMS
to—



Cube
Retail 12/-
Compress
Retail 20/-
Liberal
Trade
Discounts

Sole Concessionaires for the British Isles:

McCLURE, YOUNG & Co. Ltd.

Disinfectant Manufacturers,
ECLIPSE WORKS - LONDON, S.W.13

FOR . . . SEXUAL NEURASTHENIA and IMPOTENCE.

TESTOGAN tablets and ampoules.
THELYGAN tablets and ampoules.
YOHIMBIN tablets and ampoules.
LECITHIN-YOHIMBIN pills and tablets.

HOVALETTEN TABLETS. Sedative and
Hypnotic.

FOR . . . RHEUMATISM, GOUT, NEURALGIA, and SCIATIC CONDITIONS.

ATOCIN tablets.
ATOCIN WITH ASPIRIN tablets.
LIPOLYSIN tablets and ampoules for OBESITY.
BISMOLAN suppositories and ointment for
HAEMORRHOIDS.
ELIXIR NEUROGENIC (Cavendish) TONIC
RECONSTRUCTIVE.

For literature and other information apply to:—

CAVENDISH CHEMICAL COMPANY,
137 REGENT STREET, LONDON, W.1

TRY AN 'ASPRO' WINDOW DISPLAY AND BUY ON BONUS TERMS

We are frequently pointing out the wonderful pulling power of the 'ASPRO' Window Display on account of its linking up with continuous and ever-increasing publicity. A test made of a display will interest all chemists who wish to increase their business.

'ASPRO' has a Tremendous Power to Build Up a Chemist's Business

A test will demonstrate what a great power 'ASPRO' Publicity is to help the Chemist. It is not only on account of the actual 'ASPRO' that it usually sells, but also on its great value in bringing customers into the Chemist's shop who would not otherwise have come in. Every time you put an 'ASPRO' window display in you connect up with a £200,000 continuous advertising activity just the same as if you put your own name at the foot of the advertisements. Why not write us for a window display to-day, also take advantage of the liberal bonus terms shown below whereby you can make an extra 17% profit?



SEND FOR ONE OF THESE DISPLAYS



Buy 'ASPRO' on Bonus Terms and Get 17% EXTRA PROFIT

Just have a look through your purchases of 'ASPRO' and you will find that you are in a position to buy on Bonus terms. Buying on Bonus terms means extra profit averaging 17% to you. So why not place your next order through your Wholesaler on Bonus terms?



WHAT THE BONUS IS

BONUS ON 10's

One Gross Order - Bonus 1 dozen packets.
Half Gross Order - Bonus $\frac{1}{2}$ dozen packets.
Half Gross 10's is minimum order accepted for Bonus purposes.

BONUS ON 25's

One Gross Order - Bonus 2 dozen packets.
Half Gross Order - Bonus 1 dozen packets.
Quarter Gross Order - Bonus $\frac{1}{2}$ dozen packets.
Quarter Gross is minimum quantity.

NO BONUS ON 60's

CONDITIONS

The conditions are, that upon receipt of each bonus the chemist undertakes to show 'ASPRO' Display matter in his shop window for 14 days, and to sell at advertised prices. Acceptance of bonus is considered as acceptance of these conditions. To qualify for the bonus it is not necessary for the chemist to buy both sizes at the same time, but single lots may be ordered—viz., 6 doz. 10's, or 3 doz. 25's.

[As 'ASPRO' is so extensively advertised, this Display will not only bring customers into the chemist's shop to purchase 'ASPRO', but will enable the chemist to make other sales as well.]

HOW TO ORDER BONUS PARCELS

We do not sell direct to the Chemist, all our business going through a Wholesaler. Orders may be sent either to your Wholesaler or direct to us. If to us, state the name of your Wholesaler so that we may forward the order on, and the Bonus will be supplied direct by us

ORDINARY PRICES for
UNSTAMPED 'ASPRO'
are as follows:

6d. size containing 10 tablets	-	4/6 dozen
1/3 size containing 25 tablets	-	11/6 dozen
2/6 size containing 60 tablets	-	21/- dozen

Subject to
2 1/2% discount
30 days.

NOTE.—
2/6 size contains
10 extra tablets.

'ASPRO' consists of the purest Acetyl Salicylic Acid that has ever been known to Medical Science, and its claims are based on its superiority.

Agents: GOLLIN & Co. Pty. Ltd. ('Aspro' Dept.), Slough, Bucks.

No proprietary right is claimed in the method of manufacture or the formula.

'Phone: SLOUGH 608

COLLOSOL ZINC CREAM

(CROOKES)



This distinctive and extensively prescribed product not only possesses exceptional curative properties in actual skin troubles, but forms a very valuable and delightful toilet accessory.

Its unique value in SUNBURN, INSECT BITES, and the Various Minor SKIN AILMENTS, and for general use, make it an exceptional line for personal recommendation.

THE CROOKES LABORATORIES

(British Colloids Limited)

22 CHENIES STREET, TOTTENHAM COURT ROAD, W.C.1

Telephones : Museum, 3663, 3697, 5757.

Telegrams : "Collosols, Westcent, London."

Export Distributing Agents : AYRTON, SAUNDERS & CO., LTD., LIVERPOOL.

BESORBON

(Dr. Hill's Formula)

MEDICINAL SNUFF. ABSOLUTELY THE
FINEST REMEDY FOR CATARRH & COLD
IN THE HEAD.

Richard Dickeson & Co.

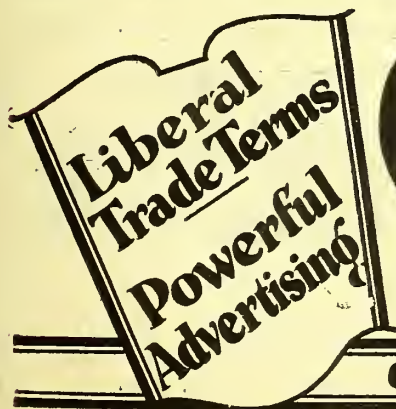
(Incorporated with Reynolds, Sons & Co., Ltd.)

57-59 CHARTERHOUSE STREET, LONDON, E.C.1.

NEPENTHE.

THE SAFEST AND BEST PREPARATION OF OPIUM.

The word "Nepenthe" is registered under the Trade Marks Act, and is our exclusive property. No substitute may be dispensed when "Nepenthe" is ordered in a prescription. "Nepenthe" comes within the regulations of the Dangerous Drugs Act, 1920.

FERRIS & COMPANY, LIMITED, BRISTOL.

Cephos

THE
PHYSICIAN'S REMEDY
for

HEADACHE, NEURALGIA, RHEUMATISM, NEURITIS, Etc.

Is now being vigorously advertised throughout the country.

POWDER AND TABLETS. RETAIL AT 1/3 and 3/-

:: Sole Proprietors ::

CEPHOS LTD.**BLACKBURN**

Compound Syrup of HypophosphitesTRADE **"FELLOWS"** MARK

Compound Syrup of Hypophosphites "FELLOWS," in addition to being in constant and increasing demand, adds distinction to a chemist's show window.

It is a symbol of progressiveness and reliability

Tablets Laxative "FELLOWS"*"The Tablet With a Pedigree"*

IN TWO SIZES, NAMELY:

LARGE BOTTLES
(Containing 100 Tablets)

SMALL BOTTLES
(Containing 40 Tablets)

Fellows Medical Manufacturing Co., Inc.

26 Christopher Street

New York City, N. Y.

LABORATORIES:

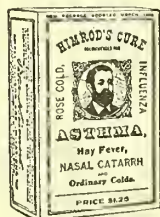
Mexico City, Mexico; Montreal, Canada; Paris, France; Milan, Italy;
Barcelona, Spain; Berlin, Germany.

EVERY SALE OF

**HIMROD'S
Asthma Cure**

CREATES A SATISFIED CUSTOMER

SUFFERERS SEEKING RELIEF FROM



The paroxysms of
BRONCHIAL ASTHMA
Asthmatic Hay Fever
Common Colds
Nasal Catarrh
Bronchitis

Will be quickly helped by the use of this time-tried remedy.
Burn half a teaspoonful, inhale the fumes and the distress vanishes.

ON THE MARKET FOR OVER 50 YEARS

"Himrod's Cure is a well known product, very useful in many cases."
—W. J. Hadley, M. D., formerly lecturer at London Hospital.

May be had from wholesale distributors throughout the world

Himrod Manufacturing Company, Mfrs.
463/5 Eleventh Street, Hoboken, NEW JERSEY, U.S.A.

ERGOAPIOL
(Smith)

Protective Mark
Patented in U. S. and
Foreign Countries.

Ergoapiol
(Smith) is identified by the letters "M. H. S." raised in the gelatin on the inside of each capsule—thus.



Capule cut in half thru the seam, showing initials.



Capule intact, showing no mark objectionable to the physician.

[Ergoapiol (Smith) is to be had only in packages of twenty capsules each—never supplied in bulk or other form.]

MARTIN H. SMITH CO., New York, N. Y., U. S. A.

**WESSANEN'S
PURE COCOA POWDER
PRIME COCOA BUTTER**

Sales Office :

12 Broom Lane, Broughton Park,
MANCHESTER.

The Speed Men's Fixatives



Ku-Bist Hair Fixative and Rosola (Fixative with Oil) have been regularly advertised to out-door men week after week in "The Autocar," "The Motor" and "The Motorcycle," and are now recognised throughout the country as the supreme fixatives for motorists.

The advertising is continuing and increasing, and men will no longer accept the older brands—they are demanding the new brand that gives guaranteed results.

Ruffle proof to over 70 m.p.h.

The holding properties of Ku-Bist Hair Fixative have been tested to destruction. Lapping Brooklands at 70 m.p.h. failed to lift a whisker. On a cross-Channel flight, however, failure utter and complete was recorded—but not until 140 m. p.h.

"The Beauty Shop"

June 1929, in a cordial review of the Ku-Bist-Fixatives says :- "..... a fixative such as this is bound to have a ready sale and in conjunction with the advertising, the retailer is here presented with a line which he can safely buy and easily sell"



KU-BIST

Hair Fixative & Rosola

(Fixative perfectly amalgamated with Rose Oil)

**Known and Wanted everywhere—
are YOU showing them?**

Prices:

(Small)	1/-	size	..	8/-	per doz.
(Medium)	1/9	"	..	13/6	"
(Large)	2/9	"	..	21/-	"

Other Ku-Bist Preparations (similar pack)

After-Shave Cream	Bay Rum	Cocoonut Oil, Dry and		
Brilliantine	Bay Rum and Cantharides	Pine Tar Shampoos		
Brilliantine Rose	Bay Rum and Jaborandi	Toilet Paraffin		
Brilliantine Lily	Jasmine Oil	Violet Oil	Wave Setting Lotion	
(Small)	1/3	size	.. .. 10/-	per doz. net.
(Medium)	2/3	”	.. .. 17/-	”
(Large)	3/3	”	.. .. 23/-	”

£2
ORDERS
Carriage

ALSO

Cold Cream and Vanishing Cream	Powders (loose) 4 shades
Skin Food	Ku-Bist Compact
Talcum Powder	Lipsticks—Vermeil and Electric

Send a trial order or ask for sample and fuller details.

KU-BIST SALES DEPT., WHITE HORSE STREET, LEEDS.

Scottish Agents: S. S. GOLDBERG, LTD., 153, Oxford St., GLASGOW, C.5.



This shapely Pack sells on sight

£2
ORDERS
Carriage
Paid.



Famous for a Century
SANTONIN
 SPECIFIC ANTHELMINTIC
Discovered 1829. ——— Unrivalled 1929.

Its unique safety and efficacy are appreciated by the public and substitutes are no longer tolerated. Our consumer advertising is daily increasing the demand.

Do not risk disappointing a permanent customer. Order your SANTONIN supply from your wholesaler. Packed in $\frac{1}{4}$ -oz., $\frac{1}{2}$ -oz., 1-oz. bottles, bearing the original factory label and seal.



This label and seal are the guarantee of original purity.

**"Common Helminths in Medical Practice."
 "Worms of the Dog."**

We send these interesting scientific books FREE on request

ARCOS, LTD. (Chem. Dept.) 33/36 King William St., London, E.C.3



TRADE MARK
 REGISTERED
 NO. 462,940

"SPETON"

Originally known to the
 Medical Profession as
 "SPERMATHANATON."

Entirely free of Quinine and Cacao butter

ANTISEPTIC PROPHYLACTIC TABLETS

Manufactured by The Temmler Chemical Works, Berlin. *Sole Agents for U.K. & British Colonies,* COATES & COOPER, 41 Gt. Tower St., London, E.C.3

ARE YOU SELLING

CROMESSOL
*If not—may we send you
 full particulars and terms?*

THE CROMESSOL CO., 148, BRAND STREET, IBROX

Teasdale's Chlorodyne

Shows the best profit to the Chemist
 and is the cheapest to the Customer.

NO Signature Required. Sold by CHEMISTS ONLY.

From all the leading WHOLESALERS. **TERMS FROM**
The Teasdale's Chlorodyne Co. 75 Fitzwilliam St
HUDDERSFIELD

**HAY FEVER CAN BE VERY SUCCESSFULLY
 COMBATED WITH
 POLLANTIN**

(A Serum discovered by Prof. Dunbar in 1903)

For literature and prices apply to the distributing Agents

WILLOWS, FRANCIS, BUTLER & THOMPSON, LTD.
 89a SHACKLEWELL LANE, LONDON, E.8

HYDROGEN PEROXIDE

IN BOTTLES—ALL STRENGTHS
Exceptional Stability & Purity
ATTRACTIVE TERMS

GENOXIDE LIMITED, LUTON

THE VALUE OF

"YADIL"

is fully recognised by qualified judges, and it is certified by eminent Public Analysts and Pathologists to be

:: :: ABSOLUTELY SAFE FOR :: ::
INTERNAL AND EXTERNAL USE.

It has been sold all over the world, and is being used to-day "back of beyond," as well as in the homes of our own country. Its sale is steadily increasing, old customers are retained, while new ones are being added. One or two displayed bottles will quickly establish business which will prove profitable and regular. Any assistance we can give in the provision of advertising material is yours for the asking. The "Yadil" lines cover

"YADIL" ANTISEPTIC (LIQUID AND PILLS), "YADIL" OINTMENT, "YADIL" PASTILLES and "YADIL" SOAP.

YADIL PRODUCTS (1925) LIMITED,
Sicilian House, LONDON, W.C.1.



....."Fine 'Tosse' Products".....

**NITROSCLERAN
BISMOGENOL
EKZEBROL**

EXTENSIVELY ADVERTISED TO THE MEDICAL PROFESSION

Importers: **BOXALL SMITH & CO.**
163a Strand, London, W.C.2

*More and
more
everyday!*

Snowfire Cream is fast becoming the popular favourite. Chemists all over the country are sending in more and more orders every day. Women in their thousands are finding in this fragrant non-greasy cream a real skin beautifier. Recommend Snowfire and secure quick sales and a rapid turnover.

Snowfire CREAM



In handsome Opal jars and neat Aluminium Containers retailing at 1/3 and 3d. respectively.

F. W. Hampshire & Co. (1927) Ltd.
Sunnydale Works, DERBY.

Agents—India:
Messrs. Siqueira & Son,
121 Fort St., Fort, Bombay.
Australia:
Messrs. Salmon & Spraggon,
(Australia) Ltd.
218 Kent St., Sydney, N.S.W.

May we call yourattention to:—**PETROLAX**

(BROWN CARTON)

(REGISTERED TRADE MARK)

THE IDEAL PARAFFIN AND AGAR-AGAR EMULSION**PETROLAX COMPOUND**

(RED CARTON)

A COMBINATION OF PETROLAX AND PHENOLPHTHALEIN**PETROLAX ALKALINE**

(BLUE CARTON)

A COMBINATION OF PETROLAX AND MIST. MAGNES. HYDROXIDI*Note the Prices:—*RETAIL 2/- (Nominal $\frac{1}{2}$ lb.) 14/- doz.

„ 3/6 („ 1lb.) 24/- „

„ 6/- („ 2lb.) 44/- „

*Stocked by the leading Patent Houses, or direct from the SOLE MANUFACTURERS:—***C. R. HARKER, STAGG & MORGAN, LTD.****Mile End, London, E.1**

CELLOPHANE

The ideal transparent wrapping absolutely harmless, air and grease proof, as used by all the leading Perfumers, Soap Manufacturers, etc., etc., for wrapping Soaps, Drugs, Tablets, Bath Crystals, Perfumery, Surgical Dressings, Sponges, Puffs, Soothers, Tooth Brushes and all Articles of Toilet.

Cellophane can be had in sheets, all sizes and colours; also in the shape of **Bags, Discs, Envelopes** printed or not, allowing the contents to be seen by transparency.

Cellophane wrapped goods **look better—keep better—sell better.**

Cellophane **protects, beautifies, and adds the quality touch.**

Prices, Samples and Particulars from

The CELLOPHANE COMPANY LTD.
7, 8 and 9 Bird Street, LONDON, W.1

Also 305-7 PRODUCE EXCHANGE, MANCHESTER.
35 MILLER STREET, GLASGOW.

OLIVE OIL

Producers—**CHAFFARD & COUDERC,**
MARSEILLES (France).

Sole distributors for Australia:

WILLMOTT, PRISK & CO., LTD.

ADELAIDE: 134 Grenfell Street; SYDNEY: 379 Kent Street;
MELBOURNE: 37 Swanton Street.

IT PAYS TO PUSH “GOLDEN EGG” SHAMPOOS

Reg. Trade Mark.

Write for Terms and Show Material

GOLD SEAL PROPRIETARIES LTD., CROYDON

CHEMISTS SHOULD ALWAYS HAVE IN STOCK

TOWLE'S PENNYROYAL & STEEL PILLS

Advertised all over the world.

ESTABLISHED 100 YEARS.

Sole Proprietors:

E. T. TOWLE & CO., LTD.
TOLL ST., NOTTINGHAM

POPULAR



RELIABLE

Ucal Health Salt

In spite of heavy competition from advertised brands, sales continue to show large increase.

Proof that Quality Pays



A good Saline, PROFITABLE, and packed in airtight tins & handsome 1-doz. Display Outers

8½ d. size 5/6 doz.

1 gross 60/- 2 gross 54/-

1/4 size 10/- doz.

3 doz. 9/6 doz.

Specify on your Order—free supply 2-colour handbills

Plentiful Show Material.

United Chemists' Association *
LIMITED

CHELTENHAM

(Phone 3021)

and 4 and 6 KEITH GROVE, LONDON, W.12
Telephone: "RIVERSIDE" 4641.

ANABOLIN

REDUCES BLOOD PRESSURE

THIS product has been employed successfully for some years in the treatment of high blood-pressure. The reduction brought about within one week, by so few as 15 tablets, is eloquent of its effectiveness.

ANABOLIN is being called for increasingly and can be obtained promptly through your usual wholesaler.

	Retail Price
Tabs. ANABOLIN vials of 15 tablets	- 4/6
Sol. ANABOLIN boxes of 6—1 c.c. ampoules	6/-

**ENDOCRINES, LTD.
WATFORD, HERTS.**

And at 72 Wigmore Street, London, W.1

PURE RUSSIAN LIQUID PARAFFIN MEDICINAL B.P.

ALL GRAVITIES.

HIGHEST VISCOSITY.

PURE RUSSIAN “JASMINE” BRAND WHITE OILS

CHEMICALLY PURE. WATER WHITE. ODOURLESS.
FOR MANUFACTURING PURPOSES.

Competitive Prices.

Best Quality.

Immediate Delivery.

THE PURE RUSSIAN LIQUID PARAFFIN CO., LTD.

80 BISHOPSGATE, LONDON, E.C.2

Telephone : LONDON WALL 7132-7133.

Telegrams : “ INVATORE, STOCK.”

GARDINER'S OVERALLS

For CHEMISTS & DRUGGISTS

SEND FOR NEW ILLUSTRATED LIST.

Jackets and Coats of very superior quality, made from the most reliable materials, smartly cut and thoroughly well finished in every detail.

WHITE DRILL JACKETS ... 6/11, 8/11, 10/6
 KHAKI DRILL COATS 6/11, 8/6, 10/6, 12/6, 14/6
 WHITE DRILL COATS 7/6, 9/6, 12/6, 13/6, 15/6
 BLACK DRILL COATS ... 15/6
 UNBLEACHED COATS ... 8/6

STOCK SIZES: 34 to 44 chest measure over waistcoat. Special pockets and little adjustments can be made without extra charge. POSTAGE on single coat 9d., but 20/- orders upwards carriage paid. SPECIAL PRICES FOR LARGE QUANTITIES.

GARDINER

& CO. (The Scotch House), LTD.

1, 3, 5 Commercial Road, LONDON, E.1

Telephone: Bishopsgate 6751.

Established 1839.

BRANCHES:

Deptford, Edgware Road, Woolwich,
 Clapham Junction and Knightsbridge.

ATHLETES AND VIROL & MILK FATIGUE-RESISTANCE

Presiding at the Annual General Meeting of Virol Limited, held on June 12, Mr. B. S. Straus, J.P., Chairman, in moving the adoption of the Report and Accounts, said that the results achieved in the period under review, which had been one of considerable depression in the basic industries of the country, should be regarded as highly satisfactory, and afforded gratifying testimony to the popularity of the Virol preparations.

The figures of the Balance Sheet showed very little variation from those of the previous year. The Net Profit, including the amount brought over, amounted to £124,096, the comparative figures for the previous year being £122,815. After the payment of Preference Dividends and the interest on the 6 per cent. Notes, and writing off £20,000 from the development account, the Directors recommend the payment of a dividend of 22½ per cent. on the Ordinary Shares, and the carrying forward of the balance of £74,898.

IMPORTANCE OF BALANCED DIET

Dealing with the developments of the year the Chairman referred to the confirmation afforded by the results of recent food investigations of the value of Virol, both in regard to its various vitamin food constituents, and the manner in which they were associated. The important results of the investigations published in the *British Medical Journal* last January in regard to a large number of cases of illness in children which manifested itself mainly as debility with symptoms of headache, nervousness, and recurrent sickness, further emphasised the necessity of the maintenance of a correct balance of food, especially in relation to the digestion of fat, and confirmed in a remarkable manner the value of their Virol formula, which admittedly achieved the necessary physiological balance of vitamin foods.

VIROL FOR ADULTS, TOO

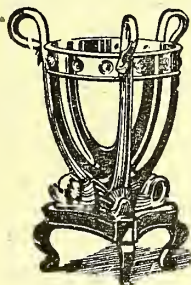
Mr. A. E. Canney, Managing Director, in seconding the resolution, said that the great measure of success that Virol had obtained was largely due to its recognised value in wasting conditions and its influence on health in childhood and adolescence. That success tended to obscure its wider application as a great tonic food, especially for adults below par. The results achieved by well-known athletes, in whose training Virol and Milk had been an important food factor, in such branches of sport as swimming, boxing, running, cycling, and long distance walking, conclusively proved its fatigue-resisting and nerve-sustaining properties; they would remember that Miss Ivy Hawke, Miss Laddie Sharp, and Mr. I. Helmy, the three competitors who succeeded in swimming the Channel last year, attributed their success in a large measure to the regular use of Virol and Milk as a training diet.

STRAIN OF MODERN LIFE

Under the strenuous conditions of modern life, which were doubtless still further accentuated as a result of the increased opportunities for sport that the extension of Summer-time afforded, many people took much more out of themselves than was formerly the case. It was at such times that Virol and Milk was particularly beneficial, not only because of its great recuperative properties in times of nerve and muscular strain, but also on account of the remarkable ease with which it was digested under conditions of fatigue.

The Report and Accounts were unanimously adopted and the proceedings closed with a vote of thanks to the Chairman Directors, and Staff.

In the last
 5 years
 the sales of



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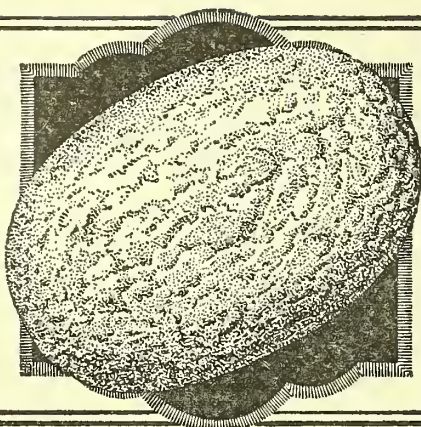
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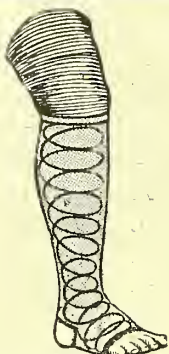
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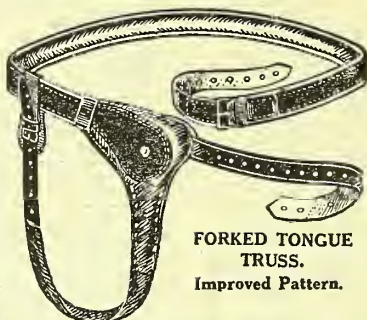
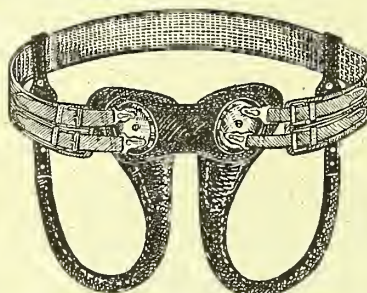
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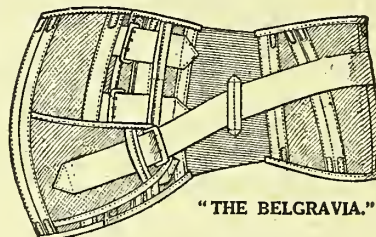
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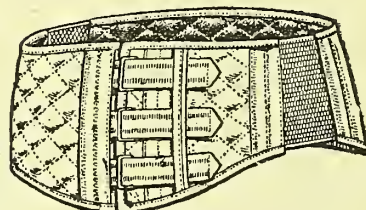
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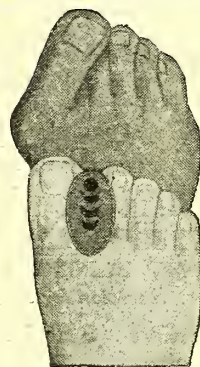


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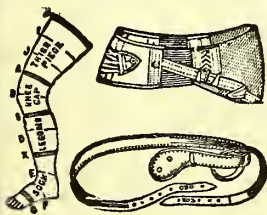
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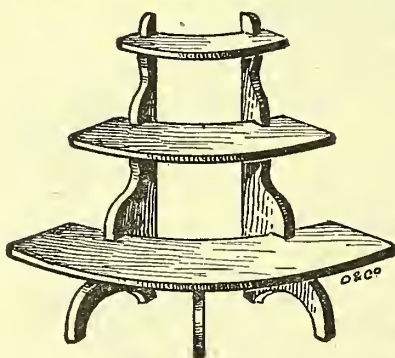
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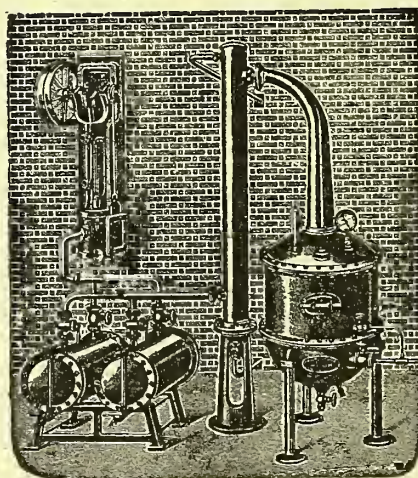
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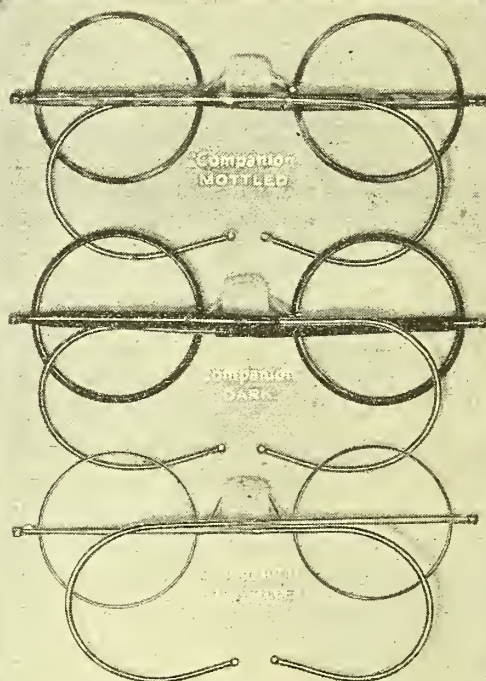
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IMPORTANT.—Every care is used in corking and packing Phosferine, but occasionally a leaky bottle will pass undetected. Any leaky or faulty bottle should be returned to Ashton & Parsons, Ltd., Ludgate Hill, London, E.C.4, when a fresh supply will be sent and postage refunded.

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Its beautiful finish combined with its sterling quality and patent sides make it the ideal Spectacle frame for general use.

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(E. T. & F. W. CORNWELL)

120 CLERKENWELL ROAD

LONDON, E.C.1

THE CHEMIST AND DRUGGIST SUPPLEMENT

42 CANNON ST.
LONDON E.C. 4

JUNE 22, 1929

This Supplement is inserted in every copy of The Chemist & Druggist.

NEXT WEEK IS THE ANNUAL SPECIAL ISSUE

therefore "THE CHEMIST AND DRUGGIST" SUPPLEMENT will be put to press a day earlier than usual. Accordingly any advertisements intended for the Supplement of JUNE 29th should reach this Office not later than

10 a.m. on WEDNESDAY, JUNE 26

Advertisements RECEIVED LATER will be inserted in the issue of July 6

CHEMISTS' TRANSFERS. Messrs. Orridge & Co., 56 Ludgate Hill, E.C.

Telephone No.: CITY 2283.

May be consulted at their Offices on matters of Sale, Purchase and Valuation

1.—NORWOOD (Main Road).—Old-established General Retail Business, with N.H.I. Dispensing; in present hands 40 years; returns exceed £1,500 per annum, under management; there is scope for considerable improvement under energetic management; gross profit one-third; single-fronted shop; good living accommodation; rent £45; lease has 18 years unexpired; price £1,100.

2.—LONDON, E.C.—Cash Retail and Prescribing Business; net profit for last four years averages £855 per annum; scope for increase; single-fronted shop, fitted in mahogany and fully stocked; rent £246 per annum; no rates; held on lease; price £3,250.

3.—LONDON, S.E.—Drug Store, together with Kodak Agency, also Columbia and H.M.V. Gramophone Agencies; returns £1,600; net profit £325; estimated value of stock and fixtures £550; good house; side entrance; rent £68; held on lease; price about £950.

4.—LONDON, W.C.—General Retail Business, with Kodak Agency; returns £60 weekly, rapidly increasing; attractive double-fronted lock-up shop; mahogany fittings; fully stocked; long lease; price £1,750, or near offer.

5.—LONDON, N.—General Retail and Dispensing Business, with Kodak Agency; established many years; returns £1,600, with gross profit 35 per cent.; double-fronted shop, well fitted and stocked; seven-roomed house with small garden; rent £125; price to be arranged.

6.—EASTERN SUBURB.—General Retail and Dispensing Business, with N.H.I.; returns at the rate of £1,600 per annum, with scope for considerable increase; net profit approximately £400; living accommodation; rent £100; price asked £1,250.

7.—LONDON, S.W.—Family Retail and Dispensing Business, with Photographic and N.H.I.; established 50 years; returns approach £1,600 per annum at very good prices; good living

accommodation; rent £80; held on lease; price £1,200, or near offer.

8.—GLAMORGAN.—General Retail and Dispensing Business, with side lines; returns £3,100 per annum; large double-fronted shop, well fitted and stocked; ample living accommodation; rent £156; price £1,650.

9.—CARNARVONSHIRE.—Family Retail and Dispensing Business; returns last year about £1,440; moderate rental; vendor is anxious to sell, and will accept any reasonable offer; further details on application.

10.—BEDFORDSHIRE.—General Retail and Dispensing Business, with Kodak Agency; returns £1,247; scope for increase under energetic management; stock and fixtures estimated to be worth £600; rent £60; held on lease; price £700, or near offer.

11.—WEST OF ENGLAND.—Drug Store, with Kodak Agency; returns exceed £1,350 per annum, with net profit £338; double-fronted shop; stock and fixtures estimated to be worth £670; rent £70; held on lease; price £750 cash.

12.—HOME COUNTY.—Retail and Dispensing Business; returns, under management, about £25 weekly; single-fronted shop, well fitted and stocked; rent £52; long lease; price about £300.

13.—ST. ALBANS (Near).—Good-class Retail Business, with Kodak Agency; returns well over £20 weekly, with scope for large increase; estimated value of stock and fixtures £550; rent £50 per annum; held on lease; vendor is anxious to sell quickly and will meet a purchaser reasonably.

14.—SCOTLAND (South).—General Retail and Prescribing Business, with Kodak and Rexall Agencies; returns last year £2,012; this year shows a good increase; net profit 24 per cent.; chartered accountant's figures; rent £25 per annum; held on lease; price £200, plus valuation of stock and fixtures.

Messrs. O. & Co. desire to emphasize the necessity of a periodical Statement of Account by which means alone Profit, the Value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted and eventually becomes confusion and loss.

Valuations for Stocktaking

Messrs. O. & Co. are prepared to undertake these essential duties and make Special Terms for such service.

ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C.4

The Association of Manfg. Chemists, Ltd.

Business Agency, Transfer & Valuation Department

Head Offices—Kimberley House, Holborn Viaduct, London,
E.C.1 (and at 2 Bixteth Street, Liverpool).

PARKIN S. BOOTH, Valuer.

'Phone: City 1261-2-3

BUSINESSES FOR DISPOSAL

- 1.—**CARMARTHENSHIRE**.—Old-established Chemist's Business situated in good position on main street, with living accommodation; held on lease for 7-14 years; rent £400 p.a.; returns average £35-40; could be increased; stock approx. £8-900. Further particulars on application. (176)
- 2.—**DURHAM CO.**—Chemist Business for immediate disposal; lease can be arranged at £30 p.a. rent; takings £17; Kodak and Ucal Agencies; good living accommodation. (174)
- 3.—**SOUTH WALES DISTRICT**.—Old-established Business, situate in main street; rental £52 p.a.; lease for 7 years will be granted. Offers invited.
- 4.—**HULL**.—Dispensing and Family Chemist Business in busy thoroughfare (which will shortly become a main road owing to alterations); rent £26 on a yearly tenancy, which can be secured; returns £900 p.a.; lock-up shop; good prospects for a young qualified man. Further particulars on application. (170)
- 5.—**LONDON, E.**—Old-established Retail and Dispensing Business; returns £3,600 p.a.; good living accommodation; freehold for sale, or would consider granting a lease; strongly recommended. Further particulars on application. (188)
- 6.—**LONDON, N.**—Established Chemist's Business; premises, which include convenient living accommodation, held on lease, 15 years to run; rental £50 p.a.; stock approx. £285; price asked £550, all at. Further particulars on application. (180)
- 7.—**LONDON, N.W.**—Retail Dispensing Business on 15 years' lease at £52 per annum inclusive; returns £1,000 p.a.; excellent opportunity for young qualified man. Further particulars on application. (185)
- 8.—**LANCASHIRE** (Seaside Resort).—Death vacancy. Old-established Dispensing and Retail Business; lock-up shop under first-class hotel; on lease; returns over last four years average £1,900 p.a.; could be considerably increased under personal supervision; specially recommended. Further particulars on application. (192)
- 9.—**SHEFFIELD** (Suburb).—Chemist's Business; recently established; rent 14s. weekly; rates 7s. 6d.; returns approximately £780; could be considerably increased; offers invited. Further particulars on application. (189)
- 10.—**SOMERSET**.—Drug and Photographic Business; premises, which consist of lock-up shop with room at rear, held on lease with 8 years to run at a rental of £88 p.a. inclusive; good scope for live man; price asked £400. (178)
- 11.—**SOUTHEND-ON-SEA**.—For immediate disposal, Chemist's Business, in busy centre; premises consist of lock-up shop, with Dispensing and storage room; rent £200 per annum, progressive; returns average £1,500, could be increased. Full particulars on application. (175)
- 12.—**STAFFS**.—Established Chemist's Business; situated on main road; unopposed in Photo and Optics; returns £24 p.w., scope for increase; lease can be arranged; rent £65 p.a.; price asked, lease and goodwill, £150, fixtures and fittings £150, and stock approx. £450. Full particulars on application. (179)
- 13.—**HAMPSHIRE**.—Family Dispensing and Retail Business for immediate disposal; premises held on lease 14-21 years at a rental of £90 per annum, including excellent living accommodation, garage, good garden; old-established business; shop beautifully fitted; returns £1,900; Medical Wine Licence; price to be arranged; full particulars on application. (190)
- 14.—**GLAMORGAN** (Seaside Resort).—Handsome lock-up shop; unopposed position in rapidly developing district; large window, on main thoroughfare; on lease at low rental; returns average £1,000 p.a.; splendid opportunity. Applications for further particulars invited. (194)
- 15.—**YORKS**.—Dispensing and Retail Business, on lease 7 years at £52 p.a.; rates £32 p.a.; average returns £18 per week; modern house, 8 rooms; splendid opportunity for young energetic man. Full particulars on application. (193)
- 16.—**LONDON, N.W.**—On lease, 8 years to run, at rental of £78 p.a. inclusive; returns £10 per week; excellent opportunity for qualified man; good opening for N.H.I. Further particulars on application. (195)
- 17.—**SOMERSETSHIRE**.—Recently established Chemist's Business for immediate disposal; returns £15 per week, which could be materially increased by the introduction of capital; corner shop, with convenient living accommodation; freehold property for sale; valuation terms would be accepted; offers invited. Further particulars on application. (196)
- 18.—**LONDON, S.E.**—Recently established Chemist's Business for immediate disposal; lease 18 years to run at small progressive rent; lock-up, double-fronted shop, well fitted in mahogany; returns approximately £900, which can be considerably increased with personal supervision; further particulars on application.

Stocktaking and Valuation of Businesses undertaken at moderate inclusive fee. Chemists are invited to consult us in respect of their requirements in connection with sale or purchase of businesses. Chemists in the North are requested to communicate with our Liverpool Offices.

ERNEST J. GEORGE

invites correspondence from Pharmacists who would be willing to negotiate the sale of their business. An immediate market is available for sound propositions doing £40 weekly and over. All letters are treated with utmost privacy, and helpful advice is given regarding value. The present period would appear to be the high-water mark, and Chemists who for any reason desire a change or retirement would do well to communicate confidentially as above.

A FEW SELECTIONS FROM REGISTER OF BUSINESSES FOR DISPOSAL.

An opportunity occurs for a young and energetic pharmacist to secure a well-established and progressive business on the Continent, conducted on British methods and known as the British Pharmacy; price approximately £6,000; two pharmacists could join with good results.

22.—**MIDLANDS**.—Excellent opportunity for young qualified man; Drug Store in growing residential district; a personal investigation will readily convince as to potentialities under full qualification; audited accounts; Doctors and Nursing Home near; no opposition; stock and fixtures approximately £300; total ingoing £500, or proprietor would form company and engage qualified lady to take interest.

28.—**SUSSEX COAST**.—High-class Pharmacy, fully stocked; Library, 200 books; lady assistant; new fittings; 20 years' lease; rent £96; rates £30 p.a.; average £35 p.w. (only opened 9 months); excellent prospects; N.H.I. 300 per month; house attached, electric all through, 5 rooms, bathroom (h. & c.); price £2,000.

29.—**ESSEX COAST** (Growing District).—Family and Dispensing, with Photographic; no opposition; present turnover £1,100; good house; property can be bought, or rented at £52 p.a.; good opportunity for "live" pharmacist; price of business £700.

42.—**LONDON, S.W.**—Well-established lock-up Pharmacy, drawing on large area; no opposition; turnover £1,170; long lease; rent £52 p.a.; Kodak Agency, N.H.I., and good Prescribing; price £725.

On application particulars of businesses in all parts and to suit varying requirements will be sent in confidence.

3 St. Paul's Close, Walsall

Telephone: WALSALL 3774.

7 Southampton Row, W.C.1

Telephone: HOLBORN 8158.

BERDOE & FISH**CHEMISTS' VALUERS AND TRANSFER AGENTS,****41 Argyle Square, KING'S CROSS, W.C.1**

(One minute from St. Pancras and King's Cross Stations.)

- 1.—WYE VALLEY (Near).—Old-established, high-class Business in very best position of market town; returns over £3,000; good profits; audited books; modern pharmacy and large house; long, valuable lease; price about £2,200.
- 2.—ESSEX (Health Resort).—Good unopposed Chemist's Business returning last year £1,156; net profit over £300; no N.H.I.; own property; lease granted; good house with large garden and garage; owner retiring; price £700.
- 3.—SURREY (Banks of Thames).—Good-class Business, in very best position, growing district; returns £1,900; modern pharmacy with flat over; good stock; price £1,500.
- 4.—EAST MIDLANDS.—Light Cash Retail, Dispensing and Photographic Business, in busy town; returns £1,200; plenty of scope in younger hands; same hands 40 years, and retiring; price £800.
- 5.—SOUTH WALES (Popular Seaside Resort).—High-class Cash Retail, in main shopping centre; returns £3,100; good house; large pharmacy; heavily stocked; price £1,650.
- 6.—LONDON, N.W.—Sound Light Cash Retail, with Kodak and Rexall Agencies; returns average £2,500; good profits; long lease; lock-up shop; well stocked; price for early sale £1,350.
- 7.—LONDON, S.E.—Well-established Drug and Photographic store, with Gramophones; returns £1,500; net profit £325; audited figures; good house and shop; illness sole cause of selling; price £550, plus stock at valuation.
- 8.—HACKNEY (Near).—Well-established Cash Retail, with large Panel; returns £2,200; net profit £590; audited books; long lease; house attached; price £1,275.
- 9.—CRYSTAL PALACE DISTRICT.—Old-established light suburban Retail, in good unopposed position; returns £1,265; net profit nearly £400; audited books; good house and shop; well stocked; price £850.
- 10.—WESTERN SUBURB.—Good-class Light Retail and Dispensing; returns £20 weekly, increasing; well-fitted pharmacy (lock-up) and good stock; price £650.
- 11.—LONDON, S.W.—Good-class light suburban Retail; returns over £1,500, under manager; good position; scope for increase; modern pharmacy; well stocked; price £975.

BUSINESSES WANTED.

BERDOE & FISH are in immediate want of sound Businesses up to £4,000, and cordially invite correspondence from intending vendors. We have a large number of cash buyers waiting, and are able to negotiate sales quickly and without publicity. Transfer Offices, 41 Argyle Square, King's Cross, W.C.1.

Estab. 1870.

Telephone: Terminus 3574.

JOHN BRIERLEY, F.N.A.A.**CHEMISTS' VALUER and TRANSFER AGENT,****135 QUEEN ST., NEWTON HEATH, MANCHESTER**

Satisfied vendors and purchasers appreciate my methods of doing business.

Valuations by fully qualified staff.

"Your interests are mine." (Tel. Fallsworth 113.)

If you require the services of a **VALUER** for the **SALE** or **PURCHASE** of a **CHEMISTS' BUSINESS**, write to me.

CHARLES E. NAYLOR**CHEMISTS' VALUER,****170 Vesper Road, Kirkstall, LEEDS.**

Tel.: Horsforth 324.

BUSINESSES WANTED.

DRUG Store, with scope, required by unregistered man; healthy district; good living accommodation (or premises for same). Full particulars, 7/13, Office of this Paper.

GOOD-CLASS Retail and Photographic Business, with good living accommodation; country or county town; reasonable distance from London; price about £1,300. Particulars to "Aloes," 151/342, Office of this Paper.

MIDDLE-CLASS Business, without property, in East or North-East Lancs or Yorks (W.R.); takings about £2,000 yearly; no Optics; lock-up shop preferred; must bear strictest investigation. 7/37, Office of this Paper.

BUSINESSES FOR DISPOSAL.

DEVON.—Owner retiring; Dispensing and Family Business (same proprietor for 25 years); excellent position; fine corner premises; good living quarters; side entrance; would Sell Freehold Premises or Let to suitable person; gas, electric, 'phone; growing district. Apply 6/18, Office of this Paper.

EAST LANCASHIRE.—Mixed Retail, with N.H.I. and Photographic; living accommodation; reasonable rent; double-fronted shop, with water (h. & c.) and electric light; returns well over £1,200; price, valuation of stock and fixtures, which could be arranged to meet any reasonable figure. Apply 7/35, Office of this Paper.

GLAMORGAN.—Seaside and Docks. Old-established Chemist's Business; good working- and middle-class; average turnover £1,450; N.H.I. 400 monthly; scope for Optics; double-fronted shop; small house, with garage and loft at rear; price £800. Apply 4/25, Office of this Paper.

GLAMORGAN.—Light Retail Business for Sale; splendid position and unlimited scope for an energetic man; bargain. £260 for quick transfer; owner has an appointment. 7/8, Office of this Paper.

HERTS (Residential Suburb).—High-class Dispensing and Family Business; long lease; low rental; double-fronted shop; Kodak Agency; excellent living accommodation; well stocked and well established; good profits; easily worked and a good opening for Optics. Apply 7/9, Office of this Paper.

KNIGHTSBRIDGE.—Lease of 1st Floor and Business of Beauty Specialist for Sale; the premises are attractively decorated and well fitted with all necessary apparatus for electric bath, massage, sun ray treatment, etc.; lease about 15½ years; rent £350, inclusive; price £1,350 (subject to contract). Agents, Messrs. Knight, Frank & Rutley, 20 Hanover Square, W.1.

LANCASHIRE.—Drug and Photographic Business; old established; main road; busy town; good scope for young man; owner retiring; rent £28 12s. per annum; returns between £750 to £1,000; could be increased; good living accommodation. Write to 278/20, Office of this Paper.

LINCOLNSHIRE.—For Sale, one of the best Village Mixed Drug Businesses (not the manure business) in the county; house and well-stocked shop; good reason for disposal. Shepperson, Kilton, Boston.

LONDON, S.E.—Drug and Photographic Stores, Kodak; main road; working class; well-fitted shop; good windows; electric light; premises redecorated; 19 years' lease; rent covered by let-off; £250, plus stock as required; part payment entertained; wonderful chance for young qualified lady or gentleman. Write "W." 30a Warwick Street, London, S.W.1.

LONDON, W.—Middle-class Cash Retail in near Western shopping street; turnover £20 weekly, under manager; ripe for rapid increase under personal supervision; convenient shop and house; side entrance; garden; long lease; price £750, or reasonable offer for prompt sale. Write BM/VCLL, London, W.C.1.

LONDON, S.W.12.—Dispensing and Family Business; Kodak Agency; returns £2,000, increasing; good N.H.I.; £1,000 all at. Apply 6/21, Office of this Paper.

LONDON (Eastern Suburb).—Branch Business for Sale; mixed Retail, N.H.I. and Photographic, Kodak Agency; double-fronted; nicely fitted and stocked; electric light; house attached; main road; turnover £1,130, under management; under personal supervision could be considerably increased; rent £2 per week inclusive; 18 years' lease; price £700. 6/220, Office of this Paper.

LONDON, W.—Good-class Dispensing and Family Business for Sale; Kodak Agency; returns £20 per week and capable of large increase; £150, plus stock and fixtures at valuation; to a bona-fide buyer part could remain. Apply 7/10, Office of this Paper.

LONDON, S.E.—Business for Sale; established 20 years; large corner shop in busy main road, surrounded by industrial dwellings; at present under unqualified management; rent £55 per annum; unlimited scope for N.H.I.; price £1,250. 8/10, Office of this Paper.

LONDON, W.C.1—Drug Store; established six months; must be sold; average takings £14 per week; young qualified should easily double; good opening N.H.I.; no near opposition; good position; price £150 all at; bargain. 137 Gray's Inn Road, London, W.C.1.

LONDON, W.—Dispensing and Family Business, with small Optical connection; large shop; turnover £5,000 per annum; long lease at moderate rental; commanding position; excellent house and garden; bankers' references required; no idle inquiries, please; price asked £4,500; owner bought another business; preference given to private Chemist. 7/14, Office of this Paper.

SOUTH COAST.—New Chemist's Business in growing district; takings £17, increasing; lock-up shop; rent £1 weekly; rates 5s.; lease 18 years to run; flat close by, 18s. 6d. weekly, includes electric light; splendid opportunity for newly qualified; must sell owing to illness; genuine. 5/12, Office of this Paper.

SOUTH-EAST ESSEX.—Chemist's Business for Sale; good position for smart man with small capital; long lease; lock-up; living accommodation could be had if desired. 151/351, Office of this Paper.

SOUTH WALES (Large Town).—Light Retail Business for Sale; corner position; living accommodation; turnover exceeds £1,700; long lease; up-to-date windows; Photographic etc.; price £300, and stock at valuation; £250 down and remainder later. 7/30, Office of this Paper.

YORKS. (West Riding).—Pharmacy; living accommodation; returns £1,000; exceptionally low overhead charges; no opposition; two owners in 58 years; E.L.; good Prescribing connection; vendor retiring; pretty country; price £550; a bargain. Also unopposed Pharmacy; nicely fitted; thickly populated district; Kodak Agency; excellent opportunity for live man; returns, under manager, £1,250; N.H.I. averages 90 weekly; low overhead charges; stock and fixtures at valuation, about £750, with or without property. Also in Bradford, old-established light Retail; Kodak Agency; turnover about £1,400; stock and fixtures at valuation, with goodwill about £750. Also in Wexham seaside resort high-class Dispensing and Shipping Business, with good house, doing £3,100; price £1,650. In Leeds, Drug Store, with house; low rent; plenty of scope; price £250. Marsden, Chemists' Valuer, 44 Sholebroke View, Leeds.

A SOUND, newly-established Business, doing, under unequalled girl, £15 to £16 per week; the shop is in a new and growing area, five miles from Birmingham; well stocked and fitted; no house; rent £1 week; price valuation stock and fixtures about £300, and goodwill £50; references required. 150/329, Office of this Paper.

DRUG and Herbalist Business; established 40 years; densely populated neighbourhood; at present doing £650 yearly under novice (at 50 per cent. profit); nice shop; four rooms; no opposition; rent £12 10s. quarterly; long agreement; price £240 (offer entertained); small stock at value. Mrs. L. M. Black, 9 Pimlico Walk, Pitfield Street, London, N.1.

FOR Sale, as a going concern, well-established Dispensing and Family Business, with Wine and Spirit Off-licence and Kodak Agency, in best position in country market town; well-fitted shop with dwelling-house attached; property, which is freehold, can be bought outright or leased, with option to purchase. Brown, Medical Hall, South Molton, N. Devon.

£200.—KENT. Drug Stores; lock-up shop; good frontage; well fitted; neglected through owner having other interests; no opposition; suit qualified lady; would sacrifice at price of stock and fixtures. Further particulars on application. 5/11, Office of this Paper.

PREMISES TO LET.

ROMFORD.—Shop, with Flat over, to Let on lease; excellent position in terrace of shop; Chemist badly needed. Apply owner, Rommington, 170 Mawry Road, Romford, Essex.

LONDON, E. and N.W.—Rooms to Let over Chemists; suitable for Dentists; no opposition; excellent positions. Apply 6/35, Office of this Paper.

SHOPS with Flat over to Let on lease in excellent position at Bromley; suit Chemist. Apply Baxter, Payne & Lepper, opposite G.P.O., Bromley, Kent.

TO CHEMISTS.—Sudbury, Harrow; vacant; Corner Shop; owing to death; most suitable for Chemist, Photography, Stationery, etc.; no opposition; growing neighbourhood; large double-fronted shop, enclosed windows, 6 rooms, bathroom and scullery; will be redecorated throughout; moderate rent. Apply owner, A. Gardner, Priory Stores, Harrow Road, Sudbury, Middlesex.

TO Let, with vacant possession, attractive Shop with good living accommodation, in main thoroughfare of large village, Wilts; good opening for Chemist's Business; would let on lease. Apply Estate Office, West Lavington, Wilts.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an Advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

AGENCIES.

SOUTH AFRICA.—Established Firm, with many years' experience best Houses and first-class connection among Chemists and Stores, would like to hear from firms wishing to be represented in Africa; principal at present in London; highest references available. Write immediately to P.C.B. 39/31, Office of this Paper.

TO PHARMACEUTICAL, COSMETICAL AND CHEMICAL WORKS.

WHO wishes to introduce his products successfully in Hungary? Pharmaceutical Chemist, with great experience, disposing of excellent connections, who could offer also serious financial securities, would assume representations.

Please write under "Only Prominent Firm" to Advertising Agency, J. Blockner, 10 Városház ucca, Budapest.

PREMISES FOR SALE.

HULL.—Two excellent openings for qualified Chemists in new and rapidly-developing positions; in both cases the shops are newly built and for sale; very substantial mortgages can be arranged, and every assistance will be given to an enterprising young man with good credentials. Apply H. H. Goodman, Ocean Chambers, Lowgate, Hull.

MANUFACTURING and Shop Premises, Croydon; nearly 7,000 square feet; electric lift, motors and shafting fitted; reasonable price. Write Box 358 at Horncastle's, 60 Cheap-side, E.C.2.

PREMISES suitable Chemist's Shop, with living rooms over, in progressive Sussex village 12 miles from Brighton; in prominent main road position; would suit large retail firm; price £900; tenant to instal own shop front. Full particulars of Harry Jas. Burt & Son, Auctioneers, Steyning, Sussex.

SITUATIONS OPEN.

BLACKPOOL.—Junior Assistant required, mid-July, for season; one used to D. & P. preferred. State age, experience, references and salary required to "Chemist," 5/14, Office of this Paper.

BEXHILL-ON-SEA.—Lady Assistant (Minor qualification), with good-class Counter and Dispensing experience, wanted immediately. Apply, with full details, to Meyrick & Davies, Ltd., Wilton Court Pharmacy, Bexhill.

BIRMINGHAM.—A young qualified Manager required for a middle-class business, with good house attached. Kindly give all particulars in first letter. 8/204, Office of this Paper.

BIRMINGHAM DISTRICT.—Experienced lady Assistant required at once for a progressive position near Birmingham; preference will be given to a smart, adaptable lady of personality, who will take a keen interest in her work. Please give details of age, experience, salary, etc., in first letter. 8/209, Office of this Paper.

BRIGHTON.—Qualified Assistant; 25-30; must have had good experience and be used to good-class business only. Apply, with full particulars, to Hart & Co., 57 and 58 East Street, Brighton.

BRIGHTON.—Junior Assistant wanted, with knowledge of Photography and Window-dressing; comfortable berth. Full particulars as to height, age, and salary, send photo, to Mr. L. Benham, 21 Cambridge Road, Hove.

CLAPHAM COMMON DISTRICT.—For good-class Retail, Dispensing and Photographic business, an Assistant; qualified preferred, but not essential. Apply, stating age, experience, salary required, to 5/18, Office of this Paper.

CORNWALL.—Improver wanted for old-established Business; excellent opportunity to learn D. & P. work. Wilmer & Hocking, Chemists, Falmouth.

DARTFORD.—Qualified Manager required for business in industrial area; plenty of scope for increase of turnover; a go-ahead man is required. Apply, giving full particulars of experience, salary required, age, and when at liberty. 8/203, Office of this Paper.

FOREST GATE, LONDON.—Young unqualified Assistant required immediately, with good Dispensing, Counter and Photographic experience. Give full particulars of age, experience and salary required and when disengaged. Applications not answered in seven days declined with thanks. 6/22, Office of this Paper.

ILFORD.—Qualified Manager, male, age between 30 and 40 years, wanted on or before July 22 for good-class Branch Pharmacy (outdoors); must be a smart Counterman and good Window-dresser. Apply, stating age, experience, references, salary required, and photo if possible, to T. Bellamy, Pharmaceutical Chemists, Tindal Square, Chelmsford.

ISLE OF WIGHT.—Capable Assistant required for season; middle of July to end of September; Counter, Dispensing and Photography. State salary required and full particulars, with photo. F. Calderbank, Seaview.

KENT COAST.—Dispenser, Minor qualification, light routine and N.H.I.; no Counter work; short hours; moderate salary; middle-aged; either sex; early July. 6/16, Office of this Paper.

LIVERPOOL.—Assistant, unqualified; must be a good Dispenser, Window-dresser; permanency; highest references; good appearance. State age, experience, references and salary required. 151/350, Office of this Paper.

LONDON (pleasant suburb).—Outdoor Assistant; qualified; young man, good Dispenser, for summer months or possible permanency. State particulars, age, height, experience and salary. 5/21, Office of this Paper.

LONDON, W.2.—William Whiteley's, Ltd., have a vacancy for a qualified Dispenser, 30-35 years of age. Apply, before 10.30 a.m., Staff Controller, Queen's Road, W.2.

LONDON, N.—Junior Assistant (unqualified) wanted, competent, with good Dispensing and Counter experience. Apply, stating full particulars of age, height, experience, and salary (outdoors) required, to Dow Bros., 44 Seven Sisters Road, Holoway, N.7.

LONDON, E.—Young qualified Manager required for branch; new business; excellent prospects for man capable of developing working-class business; progressive salary. Write R. Floyd, 11 Axe Street, Barking, E.

LONDON, N.—Qualified Manager (male, 25-30); good-class business. Write, stating experience, salary expected, etc., to Box "Y. E.," c/o Davies & Co., 95 Bishopsgate, E.C.2.

LONDON, S.W.—Qualified Assistant (male) for high-class Dispensing business; no N.H.I. Apply 7/5, Office of this Paper.

LONDON, E.—Reliable qualified Assistant; about 25; N.H.I., Photographics (D. & P. sent out). Please state when disengaged and salary required. 6/23, Office of this Paper.

LONDON, S.W.12.—Qualified Assistant; young; able to take charge; good Window-dresser and knowledge of Photography. State age, experience, and salary required. 6/210, Office of this Paper.

LONDON, S.W.—Capable, qualified Manager required for nice class Family business; this shop has been under indifferent management, and there is plenty of scope for a man with smart ideas for making a good increase of turnover; any assistance will be given to the selected applicant. Kindly give particulars of experience, salary required, age, etc. 8/2, Office of this Paper.

LONDON, S.E.—Qualified Manager, married, required for a branch, with house attached, in industrial area; quick cash and N.H.I. business; exceptional opportunity for a young man anxious to make progress. In application give age and previous experience, also state salary required. 8/211, Office of this Paper.

LONDON, S.—Experienced Manager required for a good working-class business in industrial area, with house attached; this business does a large amount of N.H.I. Dispensing. Full particulars in first letter of experience, salary required, age and when at liberty will oblige. 8/200, Office of this Paper.

LONDON.—Young lady Assistant required for quick cash trade. Apply, giving full particulars of experience, stating age, height, salary required, and when at liberty, 8/25, Office of this Paper.

LONDON.—Unqualified; young; accustomed to busy N.H.I. business. Apply, stating age, experience, salary required, to Wm. Fox & Sons, Ltd., 109, 111, 113 Bethnal Green Road, London, E.2. (10 minutes from Liverpool Street Station).

MAIDENHEAD.—Unqualified Assistant wanted; experienced Photographer essential. Apply, stating salary, to A. E. Breakspear, Chemist, Maidenhead.

MANCHESTER.—Qualified Manager for middle-class branch wanted at once; permanency. Full particulars of age, experience, references, and salary required. H. Garbutt, 96 Princess Road, Moss Side, Manchester.

NEAR BIRMINGHAM.—A capable, qualified Manager required at once for a nice class Family and Dispensing business (with house attached), situated in a large and pleasant suburb; every assistance will be given to a capable man who has a good personality. Give full particulars of experience, age, salary required, and when at liberty. 8/206, Office of this Paper.

NORTH MIDLANDS.—A vacancy occurs for an experienced Manager to take charge of a Light Retail and Family business on the outskirts of a large town; applicants must be married, as a good house is attached to this business. 8/210, Office of this Paper.

SOUTH DEVON COAST.—Wanted, capable Assistant, single, for high-class Business; Dispensing, Toilet, Photographic. All particulars, age, references and salary required (outdoors) to 278/23, Office of this Paper.

STAFFORDSHIRE.—A vacancy occurs for a qualified Manager (single) to take charge of a good-class business situate in the main street of a busy town; applicants must have had good experience of this kind of business. Give full particulars, age, salary required, and when at liberty, etc., in first letter. 8/205, Office of this Paper.

WORCESTERSHIRE.—Young, reliable qualified Assistant, single, for good-class business in country town; preference given to one experienced in Photography, Toilet and a good Window-dresser; suitable for one desiring a permanency under congenial conditions. Give particulars as to age, experience, references and salary required, and when at liberty. 6/12, Office of this Paper.

A QUALIFIED Assistant required for branch shop; must be quick and accurate; permanency if satisfactory; within easy reach of London. Write, giving full particulars, 5/7, Office of this Paper.

ASSISTANT (gentleman), about 30, required for a good middle-class business (outdoor), July 15; one with good Dispensing experience. State age, height, where experience gained, salary required, and enclose photo. Savage & Co., Pharmaceutical Chemists, Brighton.

ASSISTANT, young, chiefly for Dispensing and Window-dressing; must be quick and accurate. Replies not answered within three days respectfully declined. Apply, stating usual particulars, G. H. Mack, 62 Brockley Rise, S.E.25.

ASSISTANT, unqualified, required for good-class business in London, S.E.; good prospects for experienced and thoroughly trustworthy man desiring comfortable permanency; interview essential. "P. B. P.," 10 Powis Street, Woolwich, S.E.

COMPETENT Assistant (male), accustomed to good-class Retail and Dispensing, wanted shortly. Particulars of experience, age and salary required. "Pharmacist," 38 Heath Street, Hampstead, N.W.

COMPETENT Assistant, qualified, accustomed to high-class Dispensing and Retail business with photographics; permanency if suitable. Apply, giving full details of previous experience, age, height, married or single, salary required (outdoor) and when disengaged, to D. T. Evans, Ltd., Chemists and Opticians, Broadstairs.

EXPERIENCED Junior Assistant required, July 29 to September 14; must have had high-class Counter and Dispensing experience. Apply Blake, Sandford & Blake, 49 Dover Street, W.1.

EXPERIENCED Junior Assistant required for London, W.; must be used to a middle-class trade and have had Dispensing and Counter experience. Please state age, salary required, etc., to 8/212, Office of this Paper.

JUNIOR Assistant wanted from middle of July till end of September for good-class Counter work and sale of Photographics; abstainer preferred. Please state age, height, and give references and salary required. C. Polgreen, Perranporth, Cornwall.

JUNIOR Assistant (male) for season. State full particulars. Reed, Chemist, Ilfracombe.

LADY Assistant, unqualified, for good-class Dispensing and Retail Business. State age, references and salary required (outdoor) to W. H. Jennings, Pharmacist, 40 Market Street, Hoylake, Cheshire.

LADY Assistant (unqualified) required at once for high-class Dispensing Business; must be good Dispenser, at least five years' experience; good references. Full particulars first letter. Applicants unanswered by end month respectfully declined. Salter & Son, Chemists, Shrewsbury.

LADY Assistant (Hall qualification), with good Retail Counter experience, including Photographic sales, required at once for the season. Please state age, experience, references and salary (outdoors) in first letter to Mann, Chemist, Clacton-on-Sea.

LADY Assistant required for a business in East London in industrial area. Applicants need not be qualified, but must be good Dispensers and have had Counter experience. Kindly oblige by giving full particulars of experience, salary, age, etc. 8/201, Office of this Paper.

LOCUM, qualified, wanted for one week between August 15 and 31. Apply, stating terms, to Snowden, 137 Landor Road, Stockwell, London, S.W.9.

MANAGER, about 30, married preferred, for busy Cash Business, with considerable N.H.I., in medium working-class district; London, S.W.; salary £5 10s. weekly, with house over shop rent free and liberal commission on increased net profit; good prospects for capable man who is a tactful Counterman and not afraid of work. State age, height, details of experience and when at liberty; interview will be required. 7/18, Office of this Paper.

PART-TIME Assistant for first-class Business; Friday evening and all day Saturday; good experience Dispensing and Counter essential. Apply by letter or personally, Young & Harrison, 1 Lodge Parade, Palmers Green.

PART-TIME Assistant, young, unqualified, for evenings, 5.30 to 8.30, and Saturdays preferred, but not essential; Part II student suitable. 8/1, Office of this Paper.

QUALIFIED Lady Assistant required for Family and Dispensing Business in North London; applicants must be smart at the Counter and be accurate Dispensers. Give full particulars of age, salary, previous experience, etc. 8/213, Office of this Paper.

QUALIFIED Man required for Holiday Relief at Branches; about 10 or 12 weeks from middle of July. Apply 7/27, Office of this Paper.

QUALIFIED Manager wanted immediately for Branch Business; living accommodation. Full particulars to Stanley Taylor, Hightown, Liverpool.

QUALIFIED Manager (with possible view to purchase). State age, wages, and experience. Replies not answered in three days please consider situation filled. Peters, Chemist, 384 Harrogate Road, Leeds.

QUALIFIED Lady Assistant wanted immediately; Dispensing and Photographic; permanency to suitable applicant. Please state salary and usual particulars, photo if possible, to Milnes & Lister, Ltd., 39 Bradford Road, Brighouse, Yorks.

QUALIFIED Lady Dispenser required for Holiday Duty, 6th to 20th July. Apply at once, with full particulars, to the Secretary to Willesden General Hospital, N.W.10.

QUALIFIED Assistant wanted as Manager, Chemist Department, in good-class Store Business. Apply, with full particulars, to Seth Harry, Ltd., Okehampton, Devon.

QUALIFIED Manager (married man preferred) for light Retail and Dispensing Branch; good house. Please state full particulars in first instance, with salary required. A. E. Baylis, Chemist, Church Street, Great Malvern.

QUALIFIED male Locum required for Public Institution from July 29 to September 7; £5 10s. p.w., with dinner and tea daily. Apply to the Clerk, Union Offices, Union Road, Leytonstone, E.11.

QUALIFIED chemist for small branch, London; N.H.I. and Photography. State age, salary expected, etc., to "Immediate," 151/352, Office of this Paper.

QUALIFIED Locum required for two weeks from August 10; must be conversant with high-class Pharmacy. 7/36, Office of this Paper.

QUALIFIED Man wanted, one with initiative and energy, to act as Assistant for several weeks to study present manager's methods and to get acquainted with customers and district; right man will be appointed manager after this period; good salary and commissions; Birmingham district, working-class busy N.H.I. and Counter trade; married ex-Serviceman preferred, aged 28 to 35; house attached. Send full particulars. 8/5, Office of this Paper.

SALES MANAGER—RETAIL—An excellent opportunity occurs for a really first-class man to pick up a lucrative post, with unusual possibilities of progress; an all-round knowledge of the Chemist's business would be an advantage. Applicants must please give the fullest particulars in the strictest confidence. 8/208, Office of this Paper.

TWO lady and one Junior male Assistant for Counter trade. Full particulars to Herbert's Drug Stores, 209 Vauxhall Bridge Road, S.W.1.

UNQUALIFIED Season Assistant wanted, either sex, from July 1 to September 15 approx., for South Coast town, chiefly for Counter and some Dispensing; knowledge of Photography. Apply, stating salary, and photo if possible, 6/29, Office of this Paper.

UNQUALIFIED Junior Assistant; 50s. commence; Photo and N.H.I. Dispensing; from July 13 approximately. Thompson, 157 Kingsland Road, E.2.

WANTED, Junior Assistant, just out of apprenticeship; Counter and Dispensing; permanency. B. W. E. Beard, 281 Forest Road, Walthamstow, E.17.

WANTED, Capable Junior, Photography, until middle of September; recent references; photo if possible. Hall, Chemist, Skegness, Lincs.

WANTED immediately, qualified Assistant; West-End experience preferred. Hayman & Freeman, 93 Piccadilly, W.1.

WE have a vacancy for a young qualified Chemist to manage one of our businesses in an industrial suburb of Manchester, having a fair amount of N.H.I. Dispensing; the position calls for a married man who possesses undoubted ability, and to a manager who is anxious to prove his worth the business offers unlimited scope; house attached. 8/202, Office of this Paper.

WINDOW-DRESSER and Stock-keeper; progressive post for energetic young man. Age, experience, last two references photo and salary required to Bathe's Drug Stores, 24 Fleet Street, Torquay.

YOUNG and energetic Manager (qualified) required for relief duties; the work will extend to the end of September, and a permanent Managership will be given to an applicant who proves his worth; this is a rare opportunity for a man who wishes to gain wide and varied experience before settling down. All particulars in first letter, please. 8/207, Office of this Paper.

YOUNG qualified Assistant for Retail business and to assist in Wholesale; South Yorkshire. Enclose photo, full particulars, age, salary required, etc., to 7/15, Office of this Paper.

YOUNG qualified man wanted for old-established West-End business; must be a quick and accurate Dispenser; a good opportunity to gain West-End experience. Apply, stating salary and with photo if possible, to 151/353, Office of this Paper.

YOUNG Qualified Assistant, lady or gentleman, for good-class Dispensing and Retail. Full particulars to Bone, Chislehurst.

£3 10s.—Unqualified Junior for high-class Dispensing business, London, W.; recent West-End experience essential. Usual particulars to 5/38, Office of this Paper.

WHOLESALE.

LONDON.—Wanted, at once, capable young man as Stock-keeper, age about 30, with Wholesale experience; used to Patents, Proprietaries and Sundries; good prospects. Write, stating age, experience and wages required, 151/344, Office of this Paper.

EXPERIENCED Traveller required to sell two well-known Proprietaries to Retail Chemists on commission basis, either whole time or in conjunction with other non-competitive lines; only men with established connections in South-West Counties and South Wales need apply. Full particulars of previous experience to 151/340, Office of this Paper.

MANUFACTURER of nationally advertised Proprietaries, commanding extensive sales, requires Representatives for (1) London, (2) Manchester area, (3) Cheshire, Derbyshire, Nottinghamshire and Lincolnshire.

Those possessing initiative should apply, giving full particulars, to 151/341, Office of this Paper.

REPRESENTATIVE wanted for Perfumery House, already working Scotland by car, for non-clashing goods; also for London and South-East Counties. 151/349, Office of this Paper.

REPRESENTATIVES to call on Chemists, Hairdressers, etc., to sell new line, carded 3d. tins Solid Brilliantine; splendid side line; good commission. Apply Rose Perfumery Co., 160 Woolwich Road, Greenwich, S.E.10.

SALESMAN required for Yorkshire and Lancashire to handle on very generous commission terms attractive Toilet Lotions and Bath Preparations; over 100 accounts already opened in the above area; a fine opportunity for first-class representative with good connections Stores, Chemists, Hairdressers and Perfumers. Write, stating age and full particulars, to 151/345, Office of this Paper.

TRAVELLERS required, with knowledge Chemists' and Hair-dressing trade; must have first-class connection; good salary and commission. Write (in confidence), stating full particulars, age and territory covered, 151/345, Office of this Paper.

TRAVELLERS wanted, on commission only, to call on Chemists and Hairdressers; Proprietary lines and Brilliantine. Apply to 6/350, Office of this Paper.

WANTED, first-class Representative, with established connection several years' standing, Northern and Midland Counties, call Chemists only; old-established Toilet and Disinfectant House. 151/346, Office of this Paper.

WANTED, Salesman already calling upon Chemists and Perfumers in the Irish Free State to represent a well-known high-class Perfumery House. Write 151/348, Office of this Paper.

(COLONIAL, INDIAN AND FOREIGN.)

ITALY.—Two, Qualified Assistants required for first-class Pharmacies in Florence and Rome; must be neat and accurate Dispensers, of good appearance and address, and good Counterman; previous Continental experience an advantage, but not essential. Full particulars in first letter, stating age, experience, and enclosing photograph, which will be returned. H. Roberts & Co., Florence, Italy.

SOUTH AFRICA.—Wholesale firm of Manufacturers, with established connection throughout the Union, will shortly require the services of a Travelling Representative, who has other suitable agencies, calling on Chemists. As no appointment will be made for some weeks applications from representatives already in the Union will be received in time for consideration. Reply 151/38, Office of this Paper.

WEST AFRICA.—Required for West Africa, qualified Chemist, preferably with Optical Diploma; age 25 to 30; single; first class passage out and home; free furnished quarters; generous leave; applicants are requested to state experience and when at liberty to sail; progressive salary; excellent prospects. Apply 151/339, Office of this Paper.

SITUATIONS WANTED.

RETAIL [HOME].

A.A.—EXPERIENCED Locum or Assistant; unregistered; Dispensing, Counter, Windows, Prescribing and Photography. Harries, 262 South Lambeth Road, S.W.8.

A.A.—QUALIFIED, experienced all branches, keen and up-to-date Window-dresser, desires change of Managership. "Chemist," 42 Pembury Road, London, E.5.

A.—LOCUM; disengaged; excellent experience and references; moderate salary; rail fare. "Reliable," 129 Praed Street, London, W.2.

A MANAGER; 27; qualified; reliable; 10 years' experience in Toilets, Photography, and knows his job; North London district preferred, but not essential. 6/13, Office of this Paper.

A's a good all-round General Assistant, Manager, Senior or Locum; used to busy business, good Dispensing and heavy Panel; Counter, as Salesman; keen buyer, accountant, and trustworthy; right-hand man; 20 years' experience limited companies. "G.", 130, Scott-Ellis Gardens, N.W.8.

ASSISTANT, unqualified, 30, married; Locum or permanent; 12½ years' good-class Counter, Window-dressing, Dispensing, Photographic (D. & P.); keen, active, enterprising, obliging, trustworthy and capable; would manage drug stores. "Gordon," "Kingston," West Dupton Lane, Broadstairs.

ASSISTANT (passed Part I) wishes Locums in London till August 17; free now. Rodney, 33 Rodney Road, Walworth, S.E.17.

ASSISTANT, 22, unqualified, 5 years' experience, Dispensing, Counter, Window-dressing, Photographic, seeks situation immediately. E. Duun, 87 Regent Street, Leamington Spa.

ASSISTANT, unqualified; experienced, Dispensing, Photographic, Counter; manage Drug Stores; Locum or part-time; London, Metropolis, only. Write 6/11, Office of this Paper.

ASSISTANT, Junior; 21; cutdcore; good references; Family and Dispensing experience. Parry, 44 Croft's Road, Kenton, near Harrow.

CAPABLE Manager, 24, good experience and references, desires berth with living accommodation; disengaged July 6. Laird, Balsall Common, near Coventry.

CHEMIST, 32, married, requires post, Manager or Assistant; experienced; permanent or Locum. Griffiths, Werfa Henllan, Cardiganshire.

DISENGAGED.—Manager; qualified; 35; tall; energetic; all-round Counter and Dispensing experience; good Window-dresser; North or Midlands preferred. B. Mills, 77 West Street, Crewe.

DISENGAGED.—Locum; West-End experience; middle-aged; unqualified. Arthur, 62 Caldecot Road, Denmark Hill, London, S.E.5.

DISENGAGED (to-morrow, Saturday).—Locum; active; obliging; middle-aged; unqualified. "Chemist," 91 Duncombe Road, Holloway, N.19.

DISENGAGED July 9; qualified; experienced all round; Locum; good Dispenser; middle-aged. "M.P.S.," 156 Clapton Lower Road, E.5.

DISENGAGED seeks season or permanent berth; active, willing and obliging; unqualified; College trained. 7/19, Office of this Paper.

DISPENSER and Assistant (lady), qualified (Hall), 12 years' experience, requires post with Doctor or Chemist in London. "A. H.," 156 Elgin Avenue, W.

ELDERLY, qualified, desires employment with short hours or part-time. Baker, 81 Elgar Road, Reading.

FOR SEPTEMBER.—Young, qualified, married, present excellent but non-progressive West-End post for past 3 years, desires appointment offering fuller scope; South-West England preferred. 6/1, Office of this Paper.

IMPROVER seeks situation with Chemist; City or suburbs preferred; knowledge of Dispensing, Window-dressing, Counter, etc.; 4 years' experience; excellent references. Write L. V. Wardale, 114 Ewart Road, Forest Hill, S.E.23.

JUNIOR Assistant; 25; unqualified; Dispensing, Counter, Photographic; disengaged 22nd; good references; near Birmingham preferred, not essential. 7/6, Office of this Paper.

LADY Dispenser, qualified, experienced, requires holiday work, August 19 to August 31; small salary for comfortable post. 279/10, Office of this Paper.

LADY desires berth with Chemist; 12 years' experience; good appearance and address; salary £2 a week. A. G. Smith, 74 Congreve Road, Well Hall, Eltham, S.E.9.

LADY Dispenser (Hall) requires post; Locum or permanency; disengaged after July. "H.," 68 Lenham Road, Sutton, Surrey.

LADY Dispenser, 12 years' experience (Hall Certificate), seeks post, Doctor, Institution; all duties, dressings, books. 2/35, Office of this Paper.

LOCUM.—Pharmacist and qualified Optician, J.C.Q.O., F.I.O., 35, active, tall, abstainer, experienced in all branches, seeks Locum position, Newquay, Margate or Blackpool; free July 8; undeniable references. Apply "Reliable," 504 Whitchurch Road, Cardiff.

LOCUM; qualified; free July 29 to August 10, August 26 to September 7. Jones, 57 Brown Road, E.17. "Phone": Chiswick 4918.

LOCUM; qualified; reliable; vacant dates, July 11 to August 4; Western Counties preferred. 5/20, Office of this Paper.

LOCUM; qualified; town or country; disengaged June 16 to 29, inclusive; over 20 years' experience, mostly West End; competent; reliable. "Pharmacist," 81 Camden Road, N.W.1.

LOCUM; unqualified; disengaged July 1; engaged August 12 to 17; can manage. "Radix," 72 Tremadoc Road, Clapham, S.W.4.

LOCUM; qualified; immediate; disengaged; £5. F. Bidie, 10 Lemon Street, Truro.

LOCUM (or permanent); unqualified; all-round Pharmacy experience; knowledge Optics, Sight-Testing. Spencer, "Brente," Browett Road, Radford, Coventry.

MANAGER or Locum; qualified; capable, experienced man; tall; disengaged. Perry, Woodlands, Oxford Street, Barry, Glam.

MANAGER, qualified, with a view to succession; Southern Counties or London suburb preferred; 10 years' all-round experience, both London and provincial; would purchase good sound business; open to strictest investigation. 7/26, Office of this Paper.

M.P.S., WITH all-round exceptional, sound experience and qualifications, is desirous of finding a permanent and responsible management where ability and hard work would be appreciated (in Drug Stores); residence on premises if possible. "Poxos," 7/23, Office of this Paper.

PHARMACIST seeks management, view to succession early. Please apply "Pharmacist," 5/40, Office of this Paper.

QUALIFIED; 31; married; well experienced; accustomed responsibility; disengaged July 15. Gregory, Far View, Okehampton.

QUALIFIED, 23, desires change; good experience and references. "Chemist," 210 Reede Road, Dagenham, Essex.

QUALIFIED man, 25, now managing small suburban shop, desires change with more scope; energetic; quick and accurate Dispenser; Counter and Window-dressing; excellent references; City, West-End or Kent preferred; Hospital or Retail; free August 7. Randell, 13 Atkins Road, Clapham Park, S.W.12.

QUALIFIED Chemist, 23, desires change; Yorkshire or Lancashire preferred. Taylor, 4 Northfield Square, Leeds.

QUALIFIED; married; Manager, Locum; 30 years' good experience; at liberty July 15. "H. P.," 64 Church Road, Upper Norwood, S.E.19.

QUALIFIED, 35, married, desires change; Assistant or Manager; permanency; Liverpool or Wirral. Davies, 47, Grange Road West, Birkenhead.

QUALIFIED; Locum, Manager; 20 years' first-class experience as Manager; interview if desired. Kilvert, 37 Parliament Street, Gloucester.

QUALIFIED; married; good all-round experience; manager some years; disengaged end of month. H. R. Halkes, 48 High Street, Feltham, Middlesex.

RELIABLE, experienced Nurse-Dispenser, qualified, desires post with Doctor or Institution; Locum or permanent. 7/25, Office of this Paper.

SURGICAL APPLIANCES, ETC.—Young lady, with Nursing and West-End experience, desires engagement; thoroughly reliable and efficient Assistant and Saleswoman. 151/354, Office of this Paper.

UNQUALIFIED; willing and active; moderate salary; nearly 50; practically abstainer. "Chemicus," 7 Regent Place, Westminster, London, S.W.1.

WHOLESALE.

A. O. WILSON (late South Bank, Bellingham), having disposed of his business, desires outdoor appointment with reputable house; experienced Wholesale, Retail. Offers to 1 Fountain Terrace, Bellingham, Northumberland.

ADVERTISER, well connected among London Hairdressers and Drug Stores, requires a position as Traveller; salary and commission. "A. E. P.," 4 Rostrevor Mansions Road, S.W.6.

ADVERTISER, aged 32, resident Hampshire, with good connection amongst Chemists and Hairdressers in South of England, desires to represent good Manufacturing or Sundries House; commission only offers ignored. 7/31, Office of this Paper.

EXPERIENCED Traveller requires engagement; well up all branches, including medical; steady worker; excellent trade references; medical testimonials. "Beta," 60 Florence Road, Wimbledon.

FOREWOMAN; disengaged; used to controlling large staff; good experience labelling, wrapping, etc.; good knowledge of Southall & Smith filling machines; excellent references. "M. B.," 47 Lowden Road, Herne Hill, S.E.24.

GENTLEMAN, sound Chemists' connection, about to represent old-established house in West of England, South Wales, is desirous of representing another house on part salary and expenses basis. 7/1, Office of this Paper.

QUALIFIED Chemist, who is also an energetic salesman, requires situation in the Eastern Counties for a reliable house on commission, salary and expenses. 7/3, Office of this Paper.

REPRESENTATIVE, covering Midlands, open to consider other lines not clashing with Druggists' Sundries. Apply 7/2, Office of this Paper.

REPRESENTATIVE SALESMAN, Chemists' connection London, Surrey, Kent, Sussex and Western Counties, open for re-engagement; many years' experience; good address; own car; reside anywhere; salary and expenses basis. "Successful," P.C.B. 39/29, Office of this Paper.

FOR SALE.

COUNTERS, Dispensing Counter, Glass Showcases, Nests of Drawers, etc. Apply C. Goode, 36 London Road, Twickenham.

MISCELLANEOUS.

EDITORIAL ASSISTANT.

THERE is a vacancy on the Editorial Staff of **THE CHEMIST AND DRUGGIST** for a Pharmacist (not over 30 years of age) with a sound knowledge of Pharmacy and the Drug Trade generally. Particulars, in writing, and photograph (to be returned) to "M. B.," Office of this Paper.

McADAM & TUCKNISS, Stock and Share Brokers and Dealers, Westminster Bank Chambers, Blackheath, London, S.E.3. Telephone: Lee Green 0081. Telegrams: McAdam, Blackheath, S.E. Bankers: Westminster Bank, Ltd., Blackheath, S.E.3. Shares for sale, free of commission (subject): 300 Allenburys 7% Prefd. Ord., 22s. 9d.; 1,000 Low Temperature (Coalite), 2s. 10½d.; 600 G. B. Kent 5½ per cent. Prefrs., 12s. 9d., c.d.; 500 Levers 7 per cent. Prefrs., 23s., x.d.; 500 x 8 per cent. Prefrs., 23s. 6d., x.d.; 500 Imperial Chemical Defd., 14s. 9d.; 500 Mellins 6 per cent. Prefrs., 11s. 9d., x.d.; 750 Prichard & Constance (Amami) 8 per cent. Prefd. Ord., 20s. 3d. c.d. All these shares are free of commission.

CHEMIST FITTINGS.—Complete Fittings in stock. Ranges of Drug Drawers with glass labels, shelving and lockers, glass-fronted Counters, Dispensing Screens, Wall Cases, etc.; all made in sections which any local man can fix. Also Second-hand Fittings, Shop Rounds (ribbon and recess labels); Cash Tills from 15s. 6d. Kwik-Sale Case, special Chemist design. D. MATTHEWS & SON, Chemist Fitters, 14 and 16 Manchester Street, Liverpool.

CHEMISTS' FITTINGS.—Silent Salesman Cases, Drugfittings, Wallcases, Dispensing Screens, glass-front Counters, Perfume Cases, Window Enclosures, Glass Shelves, Mirrors, Counter Drawers. Before you decide send to **GEORGE COOK**, the well-known Chemists' Fitter, 27 Macclesfield Street, City Road, London, E.C.1

CLEAR OUT—your Old or Damaged Stock of Photo Goods.

Why keep them any longer? Turn them into CASH.

I GIVE BEST PRICES for Old Films (damaged, fogged or expired dates); Packet Papers. Cards (any sizes). Old Photo Goods or Cameras. Bromide Papers. Plates (all sizes, all makes); Send any goods in the photo line. I buy all, good or bad. Cash per return. A good price for all Cameras. Send them along.

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FOR Sale, Werner Jacketted Mixers and Steam Jacketted Copper Boiling Pans. Write 150/317, Office of this Paper.

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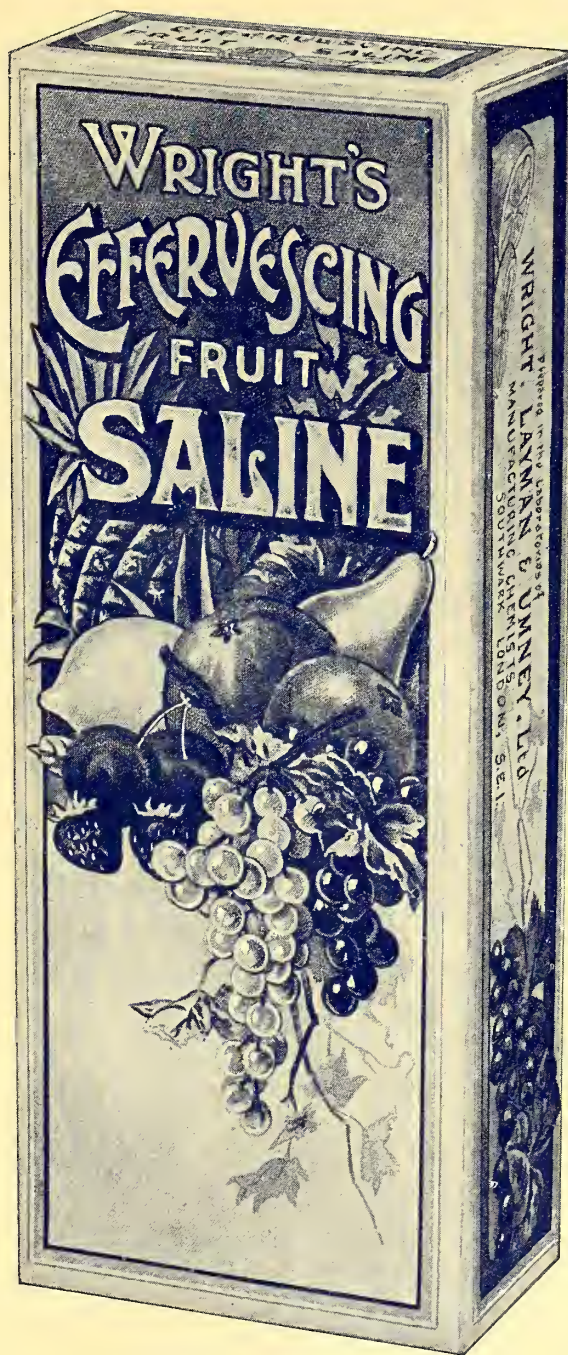
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